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UNITED STATES DISTRICT COURT  
SOUTHERN DISTRICT OF OHIO  
WESTERN DIVISION

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UNITED STATES OF AMERICA, : CASE NO. 1:18-cr-0043  
:  
Plaintiff, :  
vs. : JURY TRIAL  
:  
YANJUN XU, also known as XU : 26th of OCTOBER, 2021  
YANJUN, also known as QU HUI, : 9:30 A.M.  
also known as ZHANG HUI, :  
:  
Defendant. :  
:  
- - -

TRANSCRIPT OF PROCEEDINGS  
BEFORE THE HONORABLE TIMOTHY S. BLACK,  
UNITED STATES DISTRICT JUDGE

- - -

APPEARANCES:

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13 Also present: Mae Harmon, Interpreter  
14 Robin Murphy, Interpreter  
15 Helene Conte, French Interpreter  
16 Yanjun Xu, Defendant  
17  
18 Law Clerk: Cristina V. Frankian, Esq.  
19  
20 Courtroom Deputy: Rebecca Santoro  
21  
22 Stenographer: Mary Schweinhagen, RPR, RMR, RDR, CRR  
23 United States District Court  
24 200 West Second Street, Room 910  
25 Dayton, Ohio 45402

Proceedings reported by mechanical stenography,  
transcript produced by computer.

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# **INDEX OF WITNESSES**

TUESDAY, OCTOBER 26, 2021

DIRECT      CROSS      REDIRECT      RECROSS

## **PLAINTIFF'S WITNESSES**

RIZWAN RAMAKDAWALA	5	52	56
FREDERIC HASCOET	61	69	
SUN LI	75		
ADAM JAMES	111		

\*      \*      \*      \*      \*

## **INDEX OF EXHIBITS**

### **GOVERNMENT'S**

### **ADMITTED**

78	15
90a	84
90b	85
91b	94
92	95

\*      \*      \*      \*      \*

1 P-R-O-C-E-E-D-I-N-G-S 9:43 A.M.

09:43:45 2 (In open court outside the presence of the jury.)

09:43:45 3 THE COURT: Good morning. We are in the open  
09:43:47 4 courtroom on the record outside the presence of the jury on  
09:43:50 5 the case of United States versus Xu. The government team is  
09:43:54 6 here. Defense team is here. Court interpreter's here. The  
09:43:59 7 defendant's own interpreter is here.

09:44:01 8 Are we ready to proceed from the government's  
09:44:06 9 perspective?

09:44:06 10 MR. McKENZIE: Yes, Your Honor.

09:44:07 11 THE COURT: All right. And are we ready for the  
09:44:09 12 defendant -- from the defendant's.

09:44:15 13 MS. TAYLOR: Yes, Your Honor.

09:44:15 14 THE COURT: Very well. The government may call its  
09:44:17 15 next witness. Well, after we get the jury here. May we have  
09:44:20 16 the jury, please.

09:45:47 17 THE COURTROOM DEPUTY: All rise for the jury.

09:45:49 18 (Jury in at 9:45 a.m.)

09:46:19 19 THE COURT: You may all be seated. Thank you.

09:46:24 20 All 15 jurors have returned to the courtroom. Good  
09:46:27 21 morning. We are going to proceed with the taking of testimony  
09:46:31 22 from another witness.

09:46:35 23 Who does the government call at this time?

09:46:37 24 MR. McKENZIE: Good morning, Your Honor. At this  
09:46:39 25 time the government calls Rizwan Ramakdawala.

09:46:44 1 THE COURT: Very well. That gentleman will  
09:46:47 2 approach. We are going to put you on the witness stand here.  
09:46:54 3 And if you'll give me just a moment.  
09:47:04 4 Now that you are seated, would you raise your right hand  
09:47:08 5 for the oath to tell the truth? The other right hand.  
09:47:08 6 THE WITNESS: Sorry.  
09:47:09 7 THE COURT: Do you solemnly swear or affirm that the  
09:47:12 8 testimony you give today will be the truth subject to penalty  
09:47:14 9 of perjury?  
09:47:15 10 THE WITNESS: Yes, Your Honor.  
09:47:30 11 **RIZWAN RAMAKDAWALA, PLAINTIFF WITNESS, SWORN**  
09:47:16 12 THE COURT: Thank you.  
09:47:18 13 The lawyer may proceed to begin with the questions on  
09:47:21 14 behalf of the government.  
09:47:23 15 **DIRECT EXAMINATION**  
09:47:23 16 BY MR. McKENZIE:  
09:47:24 17 **Q.** Good morning. Will you please state your full name and  
09:47:26 18 spell your last name for the court reporter.  
09:47:28 19 **A.** My full name is Rizwan Roshanali Ramakdawala. Last  
09:47:32 20 name is spelled R-A-M-A-K-D-A-W-A-L-A.  
09:47:40 21 MR. McKENZIE: Your Honor, just for the record, this  
09:47:42 22 is Matthew McKenzie for the government.  
09:47:45 23 THE COURT: Thank you, sir.  
09:47:47 24 BY MR. McKENZIE:  
09:47:47 25 **Q.** By whom are you employed?

09:47:48 1 A. I'm employed by the United States Department of  
09:47:51 2 Defense.

09:47:51 3 Q. Within the Department of Defense, do you have a  
09:47:53 4 particular assignment?

09:47:54 5 A. Yes. I am the Manned Aircraft Division Chief at the  
09:47:59 6 Defense Technology Security Administration.

09:48:01 7 Q. What is the Defense Technology Security Administration?

09:48:06 8 A. Defense Technology Security Administration, or DTSA,  
09:48:09 9 analyzes export licenses to export technology or items that  
09:48:15 10 are controlled under the Export Administration Regulations  
09:48:18 11 or the International Traffic and Arms Regulations to foreign  
09:48:22 12 entities. So if you want to sell something to a foreign  
09:48:26 13 government, you need permission from the U.S. government if  
09:48:28 14 it's controlled.

09:48:29 15 Q. I am going to just briefly define some of those terms.  
09:48:32 16 Will you explain to the jury what an export entails?

09:48:35 17 A. So an export is the transfer of any item, technology,  
09:48:40 18 software, or equipment or services to a foreign party if  
09:48:44 19 that item is controlled by the U.S. government.

09:48:49 20 Q. And what types of export controls are there?

09:48:52 21 A. The ones that we primarily deal with are the Export  
09:48:58 22 Administration Regulations. Those are commercial  
09:49:01 23 commodities that are controlled for national security  
09:49:05 24 reasons because they have the ability to be used in  
09:49:07 25 conventional weapons.

09:49:08 1 The other is the International Traffic and Arms  
09:49:10 2 Regulations. These are actual munitions items or weapons  
09:49:14 3 that are actually exported from the U.S. government or U.S.  
09:49:17 4 contractor to a foreign entity.

09:49:20 5 THE COURT: If you will give me just a moment.

09:49:23 6 Is the interpreter able to keep up?

09:49:26 7 THE INTERPRETER: Mr. Xu was talking with his --

09:49:33 8 THE COURT: Does the witness need to slow down?

09:49:35 9 THE INTERPRETER: Thank you.

09:49:37 10 THE COURT: Yes?

09:49:37 11 THE INTERPRETER: Yes. Thank you, Your Honor.

09:49:40 12 THE COURT: We have got an interpreter going.

09:49:43 13 Sentence by sentence.

09:49:44 14 Go ahead, counsel. Sorry to interrupt.

09:49:46 15 BY MR. MCKENZIE:

09:49:46 16 **Q.** What is DTSA's role in reviewing exports and license  
09:49:52 17 applications?

09:49:53 18 **A.** So DTSA is not a regulatory agency. We are a  
09:50:01 19 recommending agency. The U.S. Department of Commerce is the  
09:50:04 20 regulatory agency for the Export Administration Regulations.  
09:50:08 21 And the U.S. Department of State is the regulatory agency  
09:50:11 22 for the International Traffic and Arms Regulations.

09:50:15 23 We at DTSA provide the DOD recommendation to the U.S.  
09:50:19 24 Department of Commerce or the U.S. Department of State.

09:50:23 25 **Q.** Remind the jury what your title is currently.

RAMAKDAWALA - DIRECT (McKenzie)

8

09:50:29 1 A. I'm currently titled as the Manned Aircraft Division  
09:50:34 2 Chief.

09:50:34 3 Q. Please explain what your duties and responsibilities are  
09:50:36 4 in that role.

09:50:37 5 A. So I am responsible for a team of engineers and  
09:50:42 6 analysts who review license applications and requests  
09:50:47 7 related to any manned aircraft commodities, so both  
09:50:51 8 commercial aircraft and military aircraft.

09:50:54 9 Q. Prior to being the Manned Aircraft Division Chief, what  
09:50:59 10 was your title at DTSA?

09:51:00 11 A. Prior to that I was the Air, Land, and Sea Division  
09:51:06 12 Chief.

09:51:06 13 Q. And what were some your duties and responsibilities in  
09:51:10 14 that role?

09:51:12 15 A. So that was prior to a reorganization at that time.  
09:51:12 16 All I had were just the engineers, so I was the division  
09:51:15 17 chief of engineers that reviewed license requests for all  
09:51:18 18 aircraft, all surface and submersible vessels, as well as  
09:51:24 19 all ground vehicles.

09:51:26 20 Q. And what about prior to being the Air, Land, and Sea  
09:51:30 21 Division Chief? Did you have another position?

09:51:33 22 A. Yes. I was a senior aerospace engineer at DTSA.

09:51:37 23 Q. And what were your duties and responsible as a senior  
09:51:40 24 aerospace engineer?

09:51:41 25 A. So my specific areas of expertise were gas turbine



RAMAKDAWALA - DIRECT (McKenzie)

9

09:51:47 1 engines -- or jet engines as it as commonly known --

09:51:50 2 composite technology, as well as helicopters.

09:51:53 3 **Q.** Before we come back to those types of engines, I'd like  
09:52:01 4 to talk to you about your educational career or educational  
09:52:05 5 history.

09:52:05 6 Did you earn a bachelor's degree?

09:52:07 7 **A.** Yes. I got my bachelor's degree in science for  
09:52:10 8 aerospace engineering at the University of Maryland, College  
09:52:13 9 Park.

09:52:13 10 **Q.** What is aerospace engineering?

09:52:15 11 **A.** So aerospace engineering is a general field that deals  
09:52:18 12 with all manners of aerospace, both in the air and space  
09:52:22 13 equities.

09:52:23 14 **Q.** In what year did you graduate?

09:52:24 15 **A.** 1994.

09:52:27 16 **Q.** After earning your bachelor's degree, did you go on to  
09:52:30 17 seek a master's degree?

09:52:31 18 **A.** Yes. I got a master's degree in aeronautical  
09:52:36 19 engineering from the Naval Postgraduate School.

09:52:38 20 **Q.** What is aeronautical engineering?

09:52:40 21 **A.** So aeronautical specializes only in the aircraft field.

09:52:44 22 **Q.** Within aeronautical engineering, did you have a  
09:52:48 23 particular specialty?

09:52:48 24 **A.** Yeah. I specialized in gas turbine engines,  
09:52:52 25 specifically compressor design.

09:52:55 1 Q. In order to obtain your master's degree, did you have to  
09:52:57 2 write a thesis?

09:52:58 3 A. Yes. I wrote a thesis called "The Preliminary Design  
09:53:03 4 Code For Axial Stage Compressors."

09:53:05 5 Q. Is that part of a gas turbine engine?

09:53:08 6 A. Yes, that is the front end of a gas turbine engine.

09:53:11 7 Q. After graduating from undergraduate, did you become  
09:53:18 8 employed?

09:53:19 9 A. Yes. I got a job as a project engineer for T-58 and  
09:53:26 10 T-64 engines at the Naval Air Systems Command.

09:53:29 11 Q. First off, what is the Naval Air Systems Command?

09:53:33 12 A. So Naval Air Systems Command is the acquisition  
09:53:36 13 community that is responsible for the sustainment of all  
09:53:40 14 naval aircraft. So F-14s, F-18s, all their helicopters, et  
09:53:46 15 cetera.

09:53:46 16 Q. Now as a project engineer, were you enlisted or a  
09:53:50 17 civilian?

09:53:50 18 A. I was a civilian.

09:53:52 19 Q. Will you please explain to the jury what some of your  
09:53:54 20 duties and responsibilities were as a project engineer?

09:53:57 21 A. So I was responsible for what they call configuration  
09:54:02 22 management, so making sure that all the parts were ensured  
09:54:07 23 that they were meeting the quality standards, making sure  
09:54:10 24 that all the manuals were up to date, making sure that we  
09:54:13 25 made all the design changes for those engines.

RAMAKDAWALA - DIRECT (McKenzie)

11

09:54:16 1 Q. And the engines that you just referenced, were they gas  
09:54:21 2 turbine engines?

09:54:21 3 A. Yes, they were all -- both the T-58 and T-64.

09:54:25 4 Q. And who manufactured those engines?

09:54:29 5 A. General Electric.

09:54:32 6 Q. Did you become familiar with the plans and designs of  
09:54:37 7 these engines?

09:54:37 8 A. Yes.

09:54:38 9 Q. Directing your attention now to July of 1999, did there  
09:54:46 10 come a time that you received a new job title within Naval Air  
09:54:51 11 Systems Command?

09:54:51 12 A. Yes. In 1999, I became the T-58 lead engineer.

09:54:55 13 Q. And so explain to the jury your duties and  
09:54:58 14 responsibilities as lead engineer.

09:55:00 15 A. So as the lead engineer, I was what they would call the  
09:55:05 16 airworthiness authority on the engines. So I was  
09:55:08 17 responsible for ensuring that the T-58 engine was safe for  
09:55:13 18 operational use by the U.S. Navy and the U.S. Marine Corps.

09:55:17 19 Q. This particular engine, was it a gas turbine engine?

09:55:22 20 A. Yes, it was.

09:55:23 21 Q. Who manufactured it?

09:55:24 22 A. General Electric.

09:55:25 23 Q. In your role as lead engineer, did you have to interact  
09:55:29 24 with General Electric?

09:55:30 25 A. Yes.

09:55:31 1 Q. In general, describe that interaction.

09:55:34 2 A. So part of the job was to understand the problems with  
09:55:38 3 the engine. Nothing ever works the way you had hoped it  
09:55:41 4 does. So when the pilots or the maintainers would try to  
09:55:45 5 fly or maintain the engine, they would obviously notice  
09:55:48 6 issues. It was our job to understand those issues, work  
09:55:51 7 with General Electric to design and develop fixes, and then  
09:55:54 8 get those fixes into production and into the engines for the  
09:55:59 9 sailors and the Marines.

09:56:01 10 THE COURT: Sir, you are doing great, but sentence  
09:56:03 11 by sentence pause for the interpreter.

09:56:07 12 THE WITNESS: Yes, Your Honor.

09:56:09 13 THE COURT: Thank you.

09:56:09 14 BY MR. MCKENZIE:

09:56:10 15 Q. Directing your attention now to in or about October of  
09:56:14 16 2004, did there come a time that you received another job  
09:56:17 17 title at Naval Air Systems Command?

09:56:19 18 A. Yes. At that time I became the H-46, H-3, and VH-3  
09:56:26 19 propulsion systems engineer.

09:56:28 20 Q. In general terms, what were your duties in that role?

09:56:32 21 A. So at that time, in addition to the engines, I was  
09:56:34 22 responsible for the electrical power, power generation, and  
09:56:40 23 power distribution in those three helicopters.

09:56:44 24 Q. Do those three helicopters use gas turbine engines?

09:56:48 25 A. Yes, they do.

RAMAKDAWALA - DIRECT (McKenzie)

13

09:56:49 1 Q. Were you still involved in overseeing those gas turbine  
09:56:54 2 engines on the systems?

09:56:56 3 A. Yes.

09:56:57 4 Q. Directing your attention now to May of 2006, did you  
09:57:03 5 receive another job at Naval Air Systems Command?

09:57:06 6 A. Yes. At that time I became the V-22 propulsion power  
09:57:11 7 systems engineer.

09:57:12 8 Q. Does the V-22 use a gas turbine engine?

09:57:16 9 A. Yes. It uses the AE-1107 gas turbine engine.

09:57:23 10 Q. Now, in or about 2007, did there come a time that you  
09:57:28 11 entered the Navair Leadership Development Program?

09:57:33 12 A. Yes.

09:57:34 13 Q. What is that program?

09:57:35 14 A. So that is to get leaders within the Naval Air Systems  
09:57:41 15 Command to take on more responsibilities and roles and to  
09:57:45 16 take on potentially supervisory and other leadership duties  
09:57:49 17 within the command.

09:57:50 18 Q. Did you have to apply for that position?

09:57:51 19 A. Yes, I did.

09:57:52 20 Q. What, if any, requirements were there, in broad terms, to  
09:58:00 21 complete the program?

09:58:01 22 A. So part of that was to get my Lean Six Sigma black  
09:58:07 23 belt, which is about improving processes within any  
09:58:10 24 particular system or capability.

09:58:14 25 Q. Did you complete the program?

09:58:16 1 A. Yes, I did.

09:58:17 2 Q. During your time with the Department of Defense, have you  
09:58:24 3 become familiar with an aircraft called the KC-135?

09:58:28 4 A. Yes. That is the Stratofortress. It's an air tanker.

09:58:34 5 Q. Explain to the jury what an air tanker does.

09:58:36 6 A. So an air tanker allows the fighter aircraft to be  
09:58:40 7 refueled in flight. So those aircraft don't have large  
09:58:44 8 tanks. So as a result, the air tanker has to come up in  
09:58:48 9 front of it and refuel the aircraft so it can continue  
09:58:52 10 operations.

09:58:53 11 Q. Are you also familiar with an aircraft known as the F-22?

09:58:57 12 A. Yes. The F-22 is called the Raptor. It's an  
09:59:02 13 air-to-air interceptor.

09:59:07 14 Q. And which part of the United States government, if any,  
09:59:10 15 uses the F-22?

09:59:10 16 A. The United States Air Force.

09:59:12 17 Q. During -- like throughout your education and your work  
09:59:17 18 history, have you become familiar with how gas turbine engines  
09:59:23 19 work?

09:59:24 20 A. Yes.

09:59:27 21 MR. MCKENZIE: Your Honor, at this time I ask  
09:59:29 22 permission to show the witness and counsel what has been  
09:59:31 23 previously marked as Government's Exhibit 78 for  
09:59:35 24 identification.

09:59:37 25 THE COURT: Yes?

09:59:40 1 MS. TAYLOR: No objection.

09:59:56 2 BY MR. McKENZIE:

09:59:56 3 Q. Looking at the screen, what is this?

10:00:00 4 A. This is a turbofan engine.

10:00:03 5 Q. Is it a diagram of an engine?

10:00:05 6 A. Yes. It's called a cutaway.

10:00:08 7 Q. Will this cutaway help the jury understand your

10:00:12 8 testimony?

10:00:12 9 A. Yes.

10:00:14 10 MR. McKENZIE: Your Honor, at this time I ask to --

10:00:15 11 or the government moves to admit and then publish Government's

10:00:20 12 Exhibit 78.

10:00:21 13 THE COURT: Any objection?

10:00:22 14 MS. TAYLOR: No objection, Your Honor.

10:00:24 15 THE COURT: It's admitted. You can publish it.

10:00:33 16 (Government Exhibit 78 was received in evidence.)

10:00:33 17 BY MR. McKENZIE:

10:00:33 18 Q. Using the cutaway, will you please explain to the jury

10:00:39 19 how a gas turbine engine works and in general terms, starting

10:00:43 20 at the front of the engine and moving to the back?

10:00:45 21 A. Sure. So the front of the engine, the big black blades

10:00:50 22 with the silver on the front, those are actually the fan

10:00:54 23 blades of the engine. Right behind that you'll see several

10:00:59 24 rows of smaller blades, much smaller blades. That is called

10:01:03 25 the low-pressure compressor. And then right behind that you

10:01:06 1 will see another row of blades before there is a shaft, and  
10:01:10 2 if I can -- I don't know if I can point it out. But those  
10:01:13 3 rows, it's probably about 10 to 15 rows before that is what  
10:01:17 4 they call the compressor.

10:01:19 5 So basically the air comes into the engine, and it  
10:01:25 6 squeezes the air under extreme pressure and temperature,  
10:01:29 7 much like a piston on the car. So when that piston goes up  
10:01:33 8 and it's skewed through that air, it increases the  
10:01:35 9 temperature and pressure. This does the exact same thing.  
10:01:38 10 The physics is the same.

10:01:39 11 The next point, and it looks like a little shaft, large  
10:01:43 12 shaft, that is actually the combustion section. So just  
10:01:46 13 like in your car, you take the air, you mix it with fuel,  
10:01:49 14 and then you ignite that air. And that is where you get  
10:01:52 15 your hot -- very hot gas, very hot temperatures.

10:01:56 16 Then you will see like two stages or two rows right  
10:01:59 17 behind that. That is what they call the high pressure  
10:02:02 18 turbine. That is actually probably the hottest part of the  
10:02:05 19 engine. That part is where it starts to extract energy from  
10:02:09 20 the air to actually do other work. To give you the car  
10:02:16 21 vernacular, when the piston goes down, that push is actually  
10:02:19 22 doing work. It pushes the next set of pistons up on the cam  
10:02:23 23 shaft. That's the same concept. So in order to keep the  
10:02:26 24 system sustaining itself over and over again, that turns the  
10:02:30 25 front part.



10:02:31 1 The last set, all the way in the back -- there is  
10:02:35 2 probably about seven back there -- that's the low-pressure  
10:02:42 3 turbine. That actually turns the low-pressure compressor  
10:02:44 4 and that fan. So the seven sets in the back actually turn  
10:02:47 5 all the things in the front so that it can keep the system  
10:02:51 6 going.

10:02:52 7 And the fan is actually propulsion. It's actually  
10:02:56 8 where most of your thrust comes from. Most people think of  
10:03:00 9 the hot gas coming out of the back of a jet engine actually  
10:03:04 10 where all the power comes from. In a commercial engine,  
10:03:06 11 it's actually the fan. The fan is responsible for 80  
10:03:09 12 percent of all the thrust that comes out of an engine.

10:03:11 13 **Q.** And what about the black material that is surrounding the  
10:03:17 14 fan? What is that called?

10:03:19 15 **A.** That's the engine casing. That's the fan containment  
10:03:22 16 casing.

10:03:22 17 **Q.** I'd like to direct your attention to the front of this  
10:03:26 18 engine, and let's start with the fan blades.

10:03:31 19 Traditionally, what are fan blades in jet turbine engines  
10:03:37 20 made of?

10:03:37 21 **A.** Previously, they used to be all made of either steel or  
10:03:41 22 aluminum or -- very rarely aluminum, but mostly titanium.

10:03:46 23 **Q.** And what about the fan blade casing or the engine casing,  
10:03:52 24 what was that traditionally made of?

10:03:53 25 **A.** That was traditionally made of usually aluminum in

10:03:57 1 order to try to keep the weight down.

10:03:59 2 **Q.** Now, during your training and experience, have you become  
10:04:05 3 familiar with the term "composite" as it applies to the design  
10:04:10 4 of aircraft parts?

10:04:11 5 **A.** Yes.

10:04:12 6 **Q.** Will you please explain to the jury what composite is?

10:04:17 7 **A.** So, in simple terms, a composite is basically any fiber  
10:04:22 8 that actually has a matrix or resin that connects them  
10:04:26 9 together. So actually, most of you have already seen  
10:04:30 10 composites in everyday life. Anybody who drives on the road  
10:04:33 11 and drives on concrete, that's actually a composite. The  
10:04:36 12 metal rebars are actually the fiber and the cement that  
10:04:40 13 holds those rebars together. That's actually the matrix.  
10:04:42 14 So that allows it to take the load as you're driving on it.

10:04:46 15 Trees are actually a composite. So the fibers and then  
10:04:50 16 the sap is actually the resin that holds the tree together.  
10:04:53 17 And that's what makes a tree so incredibly strong.

10:04:56 18 In this case, it's actually carbon fiber with epoxy.  
10:05:00 19 So the fiber acts as the strength and the epoxy ties it all  
10:05:06 20 together.

10:05:07 21 **Q.** Going back to these fan blades. You mentioned that some  
10:05:10 22 fan blades were made from steel and then they switched over to  
10:05:14 23 aluminum. Why switch from steel to aluminum?

10:05:17 24 **A.** Mostly titanium. The reason is because of the weight.  
10:05:20 25 In an aircraft, weight is key. There is no way around it.

10:05:25 1 You have to have the lightest aircraft possible, both  
10:05:27 2 whether it's for military reasons or for commercial reasons.  
10:05:35 3 Q. Now, what advantage -- are you aware of any -- anybody  
10:05:37 4 who manufactures fan blades made of carbon composite material?  
10:05:41 5 A. No.  
10:05:41 6 Q. What --  
10:05:43 7 A. Except for General Electric.  
10:05:44 8 Q. Except for who?  
10:05:48 9 A. General Electric.  
10:05:49 10 Q. What separates these carbon fan blades from titanium fan  
10:05:54 11 blades?  
10:05:54 12 A. So carbon fiber fan blades are about 50 percent lighter  
10:06:00 13 than traditional titanium.  
10:06:00 14 Q. And why does it matter that they are lighter?  
10:06:04 15 A. So with commercial aircraft, it's all about cost per  
10:06:08 16 passenger, right? So the more fuel efficient the engine,  
10:06:12 17 the less the cost is per passenger so, obviously, the better  
10:06:17 18 revenue that a U.S. airline or any airline can generate from  
10:06:22 19 using a composite fan blade.  
10:06:24 20 Q. And what about those engine encasements, what material  
10:06:30 21 does General Electric use to manufacture that component of the  
10:06:35 22 engine?  
10:06:35 23 A. They also use carbon fiber.  
10:06:37 24 Q. And what, if any, advantage does that give?  
10:06:43 25 A. So that, again, gives a significant weight savings to

10:06:47 1 be able to protect the engine.

10:06:49 2 Q. Throughout your employment with DTSA, have you become  
10:06:56 3 familiar with the structure of the U.S. aviation industry?

10:06:59 4 A. Yes.

10:07:00 5 Q. Why is that important to your job?

10:07:04 6 A. So in order to be able to understand the type of  
10:07:09 7 technology that the U.S. may be willing to export to a  
10:07:13 8 foreign party, we have to be able to assess what the U.S.  
10:07:17 9 capability is with respect to its entire industry.

10:07:21 10 Q. And how did you gain this familiarity?

10:07:25 11 A. So as the U.S. company came into request licenses, we  
10:07:30 12 were able to talk to them and understand what their systems  
10:07:34 13 and capabilities are as well as what they intended to  
10:07:36 14 export.

10:07:37 15 Q. Let's explain what type of information is contained on  
10:07:41 16 license requests for the jury, please.

10:07:43 17 THE COURT: I am going to interrupt -- I'm sorry --  
10:07:45 18 and indicate that we need to break. This is tough on the  
10:07:49 19 interpreter. The jury understands we're going to do this. So  
10:07:53 20 we're going to take a 20-minute break.

10:07:57 21 During the break, take a break. Don't discuss the case  
10:08:00 22 among yourselves or with anyone else. No independent  
10:08:04 23 research. Continue to keep an open mind.

10:08:07 24 Can you guess what I'm going to say next? Out of respect  
10:08:10 25 for you, we will rise as you leave.

10:08:13 1 THE COURTROOM DEPUTY: All rise for the jury.

10:08:14 2 (Jury out at 10:08 a.m.)

10:08:47 3 THE COURT: We're on the break till 10:30.

10:08:52 4 Gentleman on the witness stand, please do not discuss

10:08:54 5 your testimony during the break.

10:08:57 6 We're in recess.

10:08:59 7 THE COURTROOM DEPUTY: This court is now in recess.

10:09:01 8 (Recess from 10:09 a.m. until 10:28 a.m.)

10:28:52 9 THE COURT: We're in pause mode off the record.

10:28:52 10 (Pause.)

10:30:10 11 THE COURT: Are we ready for the jury from the

10:30:11 12 government's perspective?

10:30:13 13 MR. MCKENZIE: Yes, Your Honor.

10:30:18 14 THE COURT: Defense as well?

10:30:20 15 MS. TAYLOR: Yes, Your Honor.

10:30:21 16 THE COURT: Call for the jury.

10:31:38 17 THE COURTROOM DEPUTY: All rise for the jury.

10:31:40 18 (Jury in at 10:31 a.m.)

10:32:17 19 THE COURT: You may all be seated. Thank you.

10:32:19 20 15 members of the jury have rejoined us in the courtroom,

10:32:22 21 invigorated from their break and ready to go.

10:32:28 22 We will continue with the taking of testimony. The

10:32:30 23 witness remains under oath.

10:32:31 24 You may proceed, counsel.

10:32:33 25 BY MR. MCKENZIE:

10:32:35 1 Q. Will you please explain to the jury what type of  
10:32:39 2 information is contained on the license applications that you  
10:32:43 3 review?

10:32:46 4 A. So when an applicant submits a license, they have to  
10:32:51 5 define what it is that they intend to export to the foreign  
10:32:56 6 party. So they have to tell me what the actual controlled  
10:32:59 7 item is, to the extent the controlled item is, the amount of  
10:33:05 8 technical information, or any technical assistance they will  
10:33:09 9 provide to the foreign party in the application.

10:33:14 10 Q. Who -- what types of entities submit these license  
10:33:21 11 applications?

10:33:22 12 A. They are submitted by what's defined as a U.S. person,  
10:33:27 13 so typically a U.S. company.

10:33:32 14 Q. In addition to reviewing license applications, do you  
10:33:38 15 also read publicly available information published by U.S.  
10:33:42 16 companies?

10:33:43 17 A. Yes.

10:33:43 18 Q. Do you also meet with representatives of U.S. companies  
10:33:48 19 in the aviation industry?

10:33:49 20 A. Yes, I do.

10:33:50 21 Q. Will you please provide an overview to the jury of the  
10:33:59 22 U.S. commercial airline industry starting with who  
10:34:04 23 manufactures the actual planes?

10:34:06 24 A. So within the U.S., there is right now one major  
10:34:10 25 aircraft manufacturer, and that's Boeing. There are other

10:34:14 1 smaller ones, but Boeing is the prime U.S. aviation  
10:34:18 2 manufacturer.

10:34:19 3 **Q.** What about for gas turbine engines?

10:34:25 4 **A.** So for gas turbine engines, there is actually four  
10:34:34 5 primary -- there are smaller ones -- four primary U.S. gas  
10:34:36 6 turbine engine manufacturers, which is General Electric,  
10:34:39 7 Rolls-Royce, Pratt & Whitney, and Honeywell.

10:34:47 8 **Q.** Are you familiar with the design of fan blades used by  
10:34:50 9 Rolls-Royce and Pratt Whitney?

10:34:53 10 **A.** Yes, I am.

10:34:54 11 **Q.** Will you please explain to the jury what type of fan  
10:34:57 12 blades they use on their commercial gas turbine engines?

10:35:04 13 **A.** They use what they call a hollow titanium fan blade.

10:35:08 14 **Q.** Will you explain to the jury what a hollow titanium fan  
10:35:12 15 blade is?

10:35:15 16 **A.** Yes. So in order to save as much weight as possible,  
10:35:18 17 they try not to take it out of solid titanium because it  
10:35:22 18 would be heavy. So they take two sheets of titanium with  
10:35:25 19 little ribs inside that they weld all the edges together,  
10:35:29 20 and then they pump it with an inert gas, which basically  
10:35:33 21 puffs it up and allows the cavity to be empty, but it has  
10:35:39 22 the shape that they need in order to do the aerodynamic  
10:35:43 23 work. So that's a hollow titanium fan blade.

10:35:46 24 **Q.** What about Honeywell? What type of fan blades do they  
10:35:50 25 use?

10:35:50 1 A. They use solid, solid titanium fan blades. They do not  
10:35:55 2 use hollow.

10:35:55 3 Q. And what about General Electric? Remind the jury what  
10:36:01 4 kind of fan blades they use.

10:36:03 5 A. They use composite fan blades.

10:36:06 6 Q. What about for the engine encasements? What material is  
10:36:12 7 used by Rolls-Royce and Pratt Whitney?

10:36:16 8 A. I believe they use typically titanium or aluminum.

10:36:21 9 Q. And what type of material does General Electric use?

10:36:24 10 A. General Electric uses composite fan casings.

10:36:27 11 Q. Has General Electric Aviation received any type of civil  
10:36:33 12 certification from the United States government that allows  
10:36:35 13 them to use these engines commercially?

10:36:38 14 A. Yes. The GE engines that use composite fan blades and  
10:36:46 15 composite containment casings are FAA certified.

10:36:48 16 Q. Who else in the United States manufactures FAA-certified  
10:36:52 17 carbon fiber fan blades?

10:36:55 18 A. No one.

10:36:57 19 Q. Who else in the world manufactures FAA-certified carbon  
10:37:03 20 fiber fan blades?

10:37:03 21 A. No one I'm aware of.

10:37:05 22 Q. Are you aware of any other companies within the United  
10:37:10 23 States who are attempting to build carbon fiber fan blades?

10:37:15 24 A. No.

10:37:15 25 Q. What about in Europe?



10:37:21 1 A. So I believe Rolls-Royce is working on a composite fan  
10:37:25 2 blade called the UltraFan.

10:37:27 3 Q. Has Rolls-Royce received any kind of civil certification  
10:37:32 4 to sell those fan blades commercially in the United States?

10:37:37 5 A. No, not that I'm aware of.

10:37:39 6 Q. What types of engines use GE's carbon fiber fan blades?

10:37:51 7 A. Those are usually the large commercial engines.

10:37:54 8 Q. Could you provide the jury with some examples of what  
10:37:59 9 types of planes they are used on?

10:38:01 10 A. So GEnx, which is, I believe, used on the 787; the  
10:38:12 11 GE-90, which is, I believe, the 777; the new LEAP engine  
10:38:17 12 that they have designed, which is for the Boeing 737 MAX;  
10:38:24 13 the Airbus 320neo; as well as the COMAC C919.

10:38:34 14 Q. I'd like to start with the LEAP engine. Is that  
10:38:41 15 manufactured exclusively by GE Aviation or is it part of a  
10:38:45 16 joint venture?

10:38:46 17 A. No. It's part of a joint venture.

10:38:49 18 Q. With whom is it a joint venture?

10:38:54 19 A. Safran in France.

10:38:55 20 Q. What is Safran?

10:38:56 21 A. Safran is a French manufacturer of gas turbine engine  
10:39:03 22 components, parts, and systems.

10:39:04 23 Q. You mentioned an aircraft named the C919. Who  
10:39:20 24 manufactures that?

10:39:20 25 A. COMAC in China.

10:39:22 1 Q. I'd like to come to that in just a moment.

10:39:28 2 Through your employment with DTSA, have you become  
10:39:32 3 familiar with the structure of the PRC aviation industry?

10:39:37 4 A. Yes.

10:39:38 5 Q. Why is this important to your job?

10:39:41 6 A. So if a U.S. company wishes to export technology or  
10:39:46 7 capabilities that is export controlled to a foreign entity  
10:39:51 8 such as COMAC, we have to make a national security  
10:39:54 9 assessment of the potential transfer.

10:39:57 10 Q. Please explain to the jury some of the ways in which you  
10:40:01 11 have become familiar with the PRC aviation industry.

10:40:05 12 A. So a lot of it comes from industry. So in the license  
10:40:10 13 application that U.S. industry must provide, it also has to  
10:40:16 14 lay out all the parties that will be receiving the export  
10:40:22 15 and who might be the end user of that technology.

10:40:25 16 We also get it from open source information, as well as  
10:40:30 17 from the foreign parties themselves. Sometimes we will  
10:40:34 18 actually go visit the foreign parties to understand more  
10:40:36 19 about their systems and capabilities.

10:40:39 20 MR. MCKENZIE: Your Honor, at this time I ask that  
10:40:41 21 we publish Government's 10, which is already in evidence.

10:40:46 22 THE COURT: Very well.

10:40:49 23 MS. TAYLOR: No objection.

10:40:51 24 MR. MCKENZIE: Could we zoom in on the bottom third  
10:40:53 25 of the exhibit, please.

10:41:02 1 Could you scroll down a bit more?

10:41:04 2 Thank you very much.

10:41:06 3 BY MR. McKENZIE:

10:41:06 4 Q. Will you please provide an overview of the Chinese  
10:41:10 5 aviation industry to the jury?

10:41:13 6 A. So as we understand it, COMAC is a subsidiary of AVIC,  
10:41:20 7 and it is run by the SASAC, which is the state-owned assets,  
10:41:28 8 which is a state-owned enterprise.

10:41:31 9 Q. What is a state-owned enterprise?

10:41:32 10 A. So a state-owned enterprise, as we understand it from  
10:41:36 11 the Department of Defense, is an enterprise that is run and  
10:41:39 12 governed and directed by the Chinese government.

10:41:45 13 Q. Are you familiar with the Aviation Industry Corporation  
10:41:48 14 of China, or AVIC?

10:41:50 15 A. Yes.

10:41:50 16 Q. What is AVIC?

10:41:51 17 A. AVIC is a conglomerate of multiple smaller subsidiaries  
10:41:57 18 that designs and develops aircraft systems.

10:42:00 19 Q. And earlier you mentioned COMAC. Is that also known as  
10:42:06 20 the Commercial Aircraft Corporation of China?

10:42:08 21 A. Yes.

10:42:09 22 Q. What does COMAC do?

10:42:11 23 A. COMAC is -- produces what they say is commercial  
10:42:18 24 aircraft for -- or large commercial aircraft.

10:42:20 25 Q. Have you ever been to COMAC?

RAMAKDAWALA - DIRECT (McKenzie)

28

10:42:22 1 A. Yes.

10:42:23 2 Q. When did you visit COMAC?

10:42:25 3 A. 2012.

10:42:27 4 Q. Why did you visit COMAC?

10:42:29 5 A. So COMAC had requested something called a validated end

10:42:34 6 user license. I guess the best way to say is like a super

10:42:39 7 license. So rather than submitting a license for every

10:42:42 8 single transaction that they wanted, they were trying to get

10:42:47 9 a blanket license saying that they were a validated end

10:42:51 10 user, that the U.S. government blessed them to get a certain

10:42:54 11 amount of technologies and capabilities without having to

10:42:58 12 submit a license every single time.

10:43:01 13 Q. When you traveled to COMAC, did you travel on an official

10:43:06 14 U.S. Visa?

10:43:07 15 A. Yes.

10:43:08 16 Q. Who invited you, if anyone, to COMAC?

10:43:13 17 A. COMAC invited us.

10:43:15 18 Q. What name did you use when you went to COMAC?

10:43:18 19 A. My given name, Rizwan Ramakdawala.

10:43:29 20 Q. Who did you tell them that you worked for?

10:43:30 21 A. U.S. Department of Defense.

10:43:32 22 Q. Did you ask to see any trade secrets while you were

10:43:35 23 there?

10:43:35 24 A. No.

10:43:36 25 Q. During the course of reviewing license applications, do

10:43:45 1 you sometimes see U.S. trade secrets?

10:43:48 2 A. Yes.

10:43:49 3 Q. What, if any, restrictions do you have placed on you by  
10:43:54 4 the law on what you can and cannot do with those trade  
10:43:57 5 secrets? Please explain to the jury.

10:44:00 6 A. So if it's a commercial request, which most of these  
10:44:05 7 are, it is controlled under the Export Administration  
10:44:09 8 Regulation, and there is a Section 748.1(c) which dictates  
10:44:16 9 confidentiality, which says that any information that the  
10:44:19 10 U.S. party provides to the U.S. government is protected  
10:44:21 11 under that confidentiality, and we are not allowed to give  
10:44:24 12 that to any other party outside the United States  
10:44:27 13 government.

10:44:30 14 Q. Do you sometimes in the course of reviewing license  
10:44:33 15 applications see foreign trade secrets?

10:44:37 16 A. Yes.

10:44:38 17 Q. Are you allowed to share those foreign trade secrets with  
10:44:43 18 anyone?

10:44:43 19 A. No.

10:44:44 20 Q. Why not?

10:44:47 21 A. So when we are given foreign trade secrets under the  
10:44:51 22 auspices of a license request, we are still held by the  
10:44:56 23 confidentiality requirements under the EAR.

10:44:59 24 Q. What type of engine does GE sell to COMAC?

10:45:14 25 A. So the engine that they are selling is the LEAP-1C

10:45:19 1 engine for the C919. They also have sold the CF34 for the  
10:45:25 2 ARJ21 aircraft.

10:45:27 3 Q. In order to sell that engine to COMAC, did GE Aviation  
10:45:33 4 have to get a license?

10:45:34 5 A. Yes.

10:45:34 6 Q. Was that license approved?

10:45:36 7 A. Yes.

10:45:36 8 Q. Returning back to Government's 10, are you familiar with  
10:45:45 9 the Aero Engine Corporation of China, or the AECC?

10:45:50 10 A. Yes.

10:45:50 11 Q. Please explain to the jury what this organization is.

10:45:54 12 A. So AECC is their conglomerate that they brought in 2015  
10:46:00 13 to oversee all gas turbine engine development and production  
10:46:04 14 for both military and commercial aviation.

10:46:08 15 Q. Does AECC currently manufacture military engines?

10:46:12 16 A. Yes.

10:46:13 17 Q. Does AECC currently produce any commercial engines?

10:46:20 18 A. No.

10:46:20 19 Q. Are you familiar with what, if any, engines AECC is  
10:46:27 20 currently attempting to develop?

10:46:29 21 A. Yes.

10:46:32 22 MS. TAYLOR: Objection.

10:46:34 23 THE COURT: Basis? Basis?

10:46:36 24 MS. TAYLOR: Relevance, Your Honor.

10:46:39 25 THE COURT: I am going to give some latitude.

10:46:43 1 Overruled.

10:46:45 2 You can answer the question.

10:46:46 3 THE WITNESS: Yes, I am aware.

10:46:48 4 BY MR. McKENZIE:

10:46:50 5 Q. And what type of fan blades are intended to be used on  
10:46:56 6 this engine that AECC is developing?

10:46:59 7 A. The way we understand it is composite fan blades.

10:47:10 8 Q. Has AECC started selling engines with composite fan  
10:47:16 9 blades yet?

10:47:16 10 A. No.

10:47:17 11 Q. Are you familiar with their attempts to develop this  
10:47:39 12 engine?

10:47:39 13 A. Yes.

10:47:40 14 Q. Approximately how long have they been -- has AECC been  
10:47:45 15 attempting to develop this engine?

10:47:47 16 A. From our understanding, at least 2015.

10:47:53 17 MR. McKENZIE: Your Honor, may I have a moment?

10:47:56 18 THE COURT: Yes.

10:47:57 19 (Pause.)

10:48:02 20 MR. McKENZIE: Your Honor, I have no further  
10:48:03 21 questions.

10:48:03 22 THE COURT: Very well. The defense will have an  
10:48:06 23 opportunity to ask questions.

10:48:08 24 MS. TAYLOR: Thank you, Your Honor.

10:48:10 25 THE COURT: Yes.

10:48:11 1 MS. TAYLOR: If I may have a moment to move my  
10:48:13 2 materials over.  
10:48:14 3 THE COURT: Indeed.  
10:49:04 4 MS. TAYLOR: Thank you for that extra moment.  
10:49:06 5 THE COURT: Yes.  
10:49:06 6 MS. TAYLOR: Your Honor, if I may, Sanna-Rae Taylor  
10:49:08 7 on behalf of the defendant.  
10:49:09 8 THE COURT: You are going to need to speak right up  
10:49:12 9 because they are fancy microphones.  
10:49:12 10 MS. TAYLOR: Thank you, Your Honor. Sanna-Rae  
10:49:14 11 Taylor on behalf of the defendant.  
10:49:15 12 THE COURT: You still need to speak up. I'm not  
10:49:18 13 trying to be difficult.  
10:49:18 14 MS. TAYLOR: Your Honor, if I may, I will remove my  
10:49:20 15 mask so I can speak more clearly.  
10:49:22 16 THE COURT: Yes.  
10:49:23 17 MS. TAYLOR: Sanna-Rae Taylor on behalf of the  
10:49:25 18 defendant.  
10:49:25 19 THE COURT: Thank you.  
10:49:27 20 MS. TAYLOR: Success. Thank you for your patience.  
10:49:29 21 **CROSS-EXAMINATION**  
10:49:29 22 BY MS. TAYLOR:  
10:49:31 23 **Q.** Mr. Ramakdawala, thank you for your time this morning. I  
10:49:33 24 have a few questions that I'd like to follow up on. I'm going  
10:49:35 25 to do my best to be brief and not reask questions for which



10:49:39 1 you have already provided answers. However, there may be a  
10:49:41 2 question for which I need to seek additional clarification or  
10:49:45 3 explanation if I may.

10:49:46 4 So, currently, your employer is the United States  
10:49:51 5 government; is that correct?

10:49:51 6 A. That's correct.

10:49:52 7 Q. And since you graduated, your employers have been the  
10:49:55 8 United States government and the United States military?

10:49:56 9 A. Yes.

10:49:57 10 Q. And you've never worked in the private sector; is that  
10:50:04 11 correct?

10:50:04 12 A. That is correct.

10:50:04 13 Q. Currently, you serve as the division chief in your  
10:50:07 14 position?

10:50:07 15 A. That is correct.

10:50:08 16 Q. And in addition to your job duties, are you currently a  
10:50:12 17 member of any professional or industry-related associations?

10:50:16 18 A. No, I am not.

10:50:17 19 Q. Have you previously been a member of any associations?

10:50:21 20 A. Yes.

10:50:21 21 Q. Can you explain what those are, please?

10:50:23 22 A. So sometimes in order to understand how to standardize  
10:50:29 23 things, associations are created to try to share information  
10:50:33 24 and capabilities. So some of the basic ones are American  
10:50:40 25 Institution of Aviation, Vertical Flight Society, and others

10:50:43 1 like that.

10:50:43 2 Q. And you are no longer a member?

10:50:45 3 A. No.

10:50:45 4 Q. And why did you stop being a member of those  
10:50:47 5 organizations?

10:50:48 6 A. Because I had other experts that were members.

10:50:54 7 Q. Your current work, I understand, involves reviewing the  
10:50:57 8 opinions of a group of officers and experts relating to  
10:51:01 9 policies that deal with the disclosure of technology and trade  
10:51:05 10 sharing agreements; is that correct?

10:51:06 11 A. Trade sharing, no.

10:51:10 12 Q. Excuse me. Technology sharing agreements?

10:51:12 13 A. That is correct.

10:51:13 14 Q. Okay. And these science and technology agreements, they  
10:51:16 15 include agreements between United States-based companies and  
10:51:20 16 companies that are based in a foreign country; is that  
10:51:23 17 correct?

10:51:23 18 A. That is correct.

10:51:23 19 Q. And as part of your current work, you focus on the policy  
10:51:28 20 development and approval as it relates to the potential  
10:51:31 21 disclosure of these technologies. Did I understand that  
10:51:34 22 correctly?

10:51:35 23 A. If it's export controlled, yes.

10:51:37 24 Q. If it's export controlled. And not all technology is  
10:51:40 25 export controlled; is that correct?

10:51:41 1 A. That is correct.

10:51:42 2 Q. So then not all technology or information transfers are  
10:51:46 3 subject to DTSA review; is that correct?

10:51:48 4 A. That is correct.

10:51:49 5 Q. Thank you. So if I understand correctly then, subject to  
10:51:57 6 policy and regulation where it applies to controlled  
10:52:00 7 technology, that legal technology transfers do actually occur  
10:52:05 8 between United States entities and entities in foreign  
10:52:07 9 countries; is that correct?

10:52:08 10 A. That is correct.

10:52:08 11 Q. And this includes aircraft technology?

10:52:12 12 A. Yes.

10:52:13 13 Q. And you had talked about the ways that technology or  
10:52:19 14 information transfers can occur. I believe you had testified  
10:52:23 15 that sometimes technology transfers can occur through open  
10:52:26 16 source transfer; is that correct?

10:52:29 17 A. How they transfer, all I get to see is what's on a  
10:52:34 18 license.

10:52:35 19 Q. You only get to see what's on the license?

10:52:37 20 A. Um-hmm.

10:52:37 21 Q. And then in terms of your opinion today, you are not here  
10:52:42 22 to testify as an expert in the design or testing of composite  
10:52:46 23 materials; is that correct?

10:52:47 24 A. I'm here to testify based on the questions asked as an  
10:52:52 25 expert in gas turbine engines.

10:52:55 1 Q. In engines, but not specifically the design, testing, and  
10:52:58 2 manufacturing of carbon fiber composite blades and  
10:53:04 3 encasements; is that correct?

10:53:05 4 A. No, I am an expert in composite technology. I was  
10:53:09 5 responsible for category 1(c) in the EAR in negotiations for  
10:53:14 6 the United States government, which controls composite  
10:53:16 7 technologies.

10:53:16 8 Q. So then let's back it up. Were you actually involved  
10:53:19 9 then in designing and understanding the finite elements of --

10:53:24 10 A. No.

10:53:24 11 Q. -- composite blades. No.

10:53:24 12 A. No.

10:53:27 13 Q. So you were not actually modeling --

10:53:28 14 A. No.

10:53:29 15 Q. -- the materials?

10:53:29 16 You were not actually designing the molds that would be  
10:53:32 17 used for either fan blades or fan blade encasements?

10:53:37 18 A. That is a correct assessment.

10:53:38 19 Q. Thank you. And as part of your work, if I understand  
10:53:43 20 correctly, you have people that work for you, so you are not  
10:53:46 21 personally researching the latest scientific and academic  
10:53:49 22 literature related to composite materials. Is that a correct  
10:53:56 23 statement?

10:53:56 24 A. That is correct.

10:53:56 25 Q. And you have not worked for private -- or public

10:53:59 1 companies such as GE Aviation; is that correct?

10:54:01 2 A. That is correct.

10:54:02 3 Q. And so you have not worked on the design or testing of  
10:54:11 4 the composite materials, or composite materials -- excuse  
10:54:12 5 me -- used in a GE Aviation fan blade or encasement  
10:54:17 6 technology; is that correct?

10:54:17 7 A. That is correct.

10:54:18 8 Q. And you have not worked for any other aviation company;  
10:54:22 9 is that correct?

10:54:23 10 A. That is correct.

10:54:24 11 Q. And we talked about your earlier experience when you were  
10:54:30 12 with Navair. I'd like to refer to a couple of items in your  
10:54:35 13 background.

10:54:36 14 If I understood correctly -- let me actually get to my  
10:54:40 15 notes on that section -- you had worked on the T-58 and the  
10:54:44 16 T-64 projects; is that correct?

10:54:46 17 A. That is correct.

10:54:47 18 Q. Were those blades or encasements made from fiber  
10:54:50 19 composite materials?

10:54:51 20 A. No, they were not.

10:54:52 21 Q. And then in your work between 2004 and 2006, did you work  
10:54:57 22 on any blades or encasements that were made from composite  
10:55:01 23 materials?

10:55:01 24 A. No.

10:55:02 25 Q. Fiber composite materials?

10:55:03 1 A. No.

10:55:04 2 Q. And is the same true for your work, let's see, up until

10:55:08 3 2006? I wanted to clarify.

10:55:10 4 A. Yes.

10:55:11 5 Q. And then in 2006, that's when you began your leadership

10:55:20 6 course; is that correct?

10:55:20 7 A. That is correct.

10:55:21 8 Q. Outside.

10:55:28 9 I believe you also had testified that no one else in the

10:55:31 10 world other than GE uses carbon fiber blades and encasements.

10:55:36 11 Did I understand you correctly?

10:55:37 12 A. Yes.

10:55:37 13 Q. You had talked a little bit about Rolls-Royce. Is that

10:55:44 14 correct?

10:55:44 15 A. Yes.

10:55:44 16 Q. And Rolls-Royce, where are they headquartered?

10:55:48 17 A. UK, United Kingdom.

10:55:51 18 Q. And they have operations here in the United States?

10:55:52 19 A. Yes.

10:55:53 20 Q. And are you aware that Rolls-Royce went through its own

10:56:02 21 design and testing process to develop fan blades and fan blade

10:56:06 22 encasement structures made from fiber composite materials?

10:56:10 23 A. Yes.

10:56:11 24 Q. Okay. And you are aware that sometime before 2010,

10:56:14 25 roughly, based on the open literature, Rolls-Royce had already

10:56:18 1 made the decision to invest in researching and developing  
10:56:21 2 aircraft engines made from these composite materials?

10:56:25 3 A. 2010, that sounds about right.

10:56:28 4 Q. Okay. And by 2011, are you aware that Rolls-Royce had  
10:56:32 5 already manufactured and tested its carbon fiber blades and  
10:56:37 6 encasements?

10:56:38 7 A. No, I was not aware.

10:56:39 8 Q. And then are you aware that Rolls-Royce continued to  
10:56:42 9 perform tests on what I think you had identified as their  
10:56:45 10 ultra fan engine designs, including in-flight tests, during  
10:56:51 11 2013 and 2014?

10:56:52 12 A. Yes, I was aware of that.

10:56:54 13 Q. And you are aware that those occurred, those tests  
10:56:57 14 occurred primarily at a testing field located here in the  
10:57:01 15 United States?

10:57:01 16 A. Um-hmm.

10:57:01 17 Q. And are you -- well, I think actually you testified that  
10:57:04 18 you weren't aware that Rolls Royce has actually already  
10:57:09 19 started manufacturing the ultra fan blade for use in  
10:57:10 20 commercial application?

10:57:11 21 A. No, I was not aware.

10:57:13 22 Q. So it would surprise you to know that if you do a simple  
10:57:16 23 Google search, you can see that production is already  
10:57:19 24 occurring for the ultra fan?

10:57:20 25 A. Possibly.

10:57:45 1 Q. In reviewing information about DTSA -- am I saying that  
10:57:50 2 correctly, D-T-S-A?

10:57:51 3 A. Yes.

10:57:52 4 Q. Your employer. I understand that DTSA advocates  
10:57:54 5 something called a PARTNER workforce approach. Is that  
10:57:57 6 something that's familiar to you?

10:57:58 7 A. Yes.

10:57:58 8 Q. So I understand that PARTNER is basically an acronym and  
10:58:02 9 each letter is intended to represent a list of workforce  
10:58:07 10 objection -- or, excuse me -- objectives in terms of how DTSA  
10:58:11 11 members should interact with each other and with the industry;  
10:58:14 12 is that correct?

10:58:14 13 A. Yes. It's a culture.

10:58:17 14 Q. A culture. So, for example, the P stands for being  
10:58:19 15 proactive in one's job, and the N, it actually stands for  
10:58:24 16 network, which is a request that colleagues interact with each  
10:58:27 17 other and also engage with industry professionals; is that  
10:58:31 18 correct?

10:58:31 19 A. That is correct.

10:58:33 20 Q. So as part of your work, have you had occasion to reach  
10:58:35 21 out to colleagues within DTSA to discuss current trends within  
10:58:43 22 the aviation industry?

10:58:44 23 A. Within DTSA, no.

10:58:46 24 Q. No. So you have solely just done the work yourself?

10:58:49 25 A. No. What I meant by within DTSA, I meant by those who



10:58:51 1 work for me or outside of DTSA. There is nobody outside of  
10:58:54 2 the main aircraft group that works on gas turbine engine or  
10:58:57 3 aircraft technology other than us.

10:59:00 4 Q. And then you, I think, were starting to suggest you had  
10:59:02 5 discussed with colleagues outside of DTSA, so those were not  
10:59:06 6 employed by DTSA --

10:59:07 7 A. Yes.

10:59:07 8 Q. -- about trends in the aviation industry; is that  
10:59:10 9 correct?

10:59:10 10 A. That is correct.

10:59:10 11 Q. Do you know, does DTSA conduct surveillance on foreign  
10:59:14 12 companies operating outside the United States that are  
10:59:16 13 involved in aircraft manufacturing?

10:59:18 14 A. We do not.

10:59:19 15 Q. Do you receive intelligence from non-DTSA entities that  
10:59:26 16 provide information about aviation companies operating outside  
10:59:29 17 the United States?

10:59:30 18 MR. MCKENZIE: Objection, Your Honor. May we  
10:59:34 19 approach?

10:59:35 20 THE COURT: Yes.

11:02:40 21 (At sidebar.)

11:02:40 22 THE COURT: Yes?

11:02:40 23 MR. MCKENZIE: Your Honor, I fear that we are  
11:02:40 24 veering into classified territory. I would cite to SEPA  
11:02:40 25 Section 8 as the reason for my objection. The answer to his

11:02:40 1 question, confirming or denying what type of intelligence he  
11:02:40 2 receives and from whom, would be classified. And we did not  
11:02:40 3 receive notice of this type of questioning in Section 5 of  
11:02:40 4 SEPA. Therefore, we object.

11:02:40 5 MS. TAYLOR: Your Honor, we have no intention to ask  
11:02:40 6 about classified information. What I was actually trying to  
11:02:40 7 get at is what information DTSA has that might come from  
11:02:41 8 publicly available sources. Some of the remainder of my  
11:02:41 9 questions were actually just about publicly available sources  
11:02:41 10 and do not need to tread into classified information.

11:02:41 11 THE COURT: Well, then, we need to restate the  
11:02:41 12 question because I am told that the answer leads to classified  
11:02:41 13 information.

11:02:41 14 MS. TAYLOR: I'll withdraw.

11:02:41 15 THE COURT: How are you coming on your questioning?  
11:02:41 16 Because we are close to a 30-minute break.

11:02:41 17 MS. TAYLOR: Pardon me?

11:02:41 18 THE COURT: How much more do you have? We are at a  
11:02:41 19 break.

11:02:41 20 MS. TAYLOR: I think it probably makes sense to take  
11:02:41 21 a break. I don't have too much longer, but it would cross a  
11:02:41 22 half hour. I believe it would cross a half hour.

11:02:41 23 THE COURT: You have a half hour more?

11:02:42 24 MS. TAYLOR: I think so. Let me just double check  
11:02:42 25 myself.

11:02:42 1 THE COURT: Well, that's sufficient for purposes of  
11:02:42 2 a break. We'll take a break now.

11:02:42 3 I am going to sustain the objection, and you can rephrase  
11:02:42 4 when we come back. We're going to take a break. The  
11:02:42 5 objection is sustained.

11:02:42 6 Thank you.

11:02:42 7 (In open court.)

11:02:42 8 THE COURT: The objection is sustained. We are  
11:02:42 9 going to take our regular 30-minute break. It's a little  
11:02:42 10 after 11. I'd like to see you at 11:25. During the break,  
11:02:42 11 take a break. Don't discuss the case with anyone, including  
11:02:42 12 yourselves. No independent research. You need to keep an  
11:02:43 13 open mind. We will rise as you leave for a break.

11:02:43 14 THE COURTROOM DEPUTY: All rise for the jury.

11:02:43 15 (Jury out at 11:02 a.m.)

11:03:02 16 THE COURT: The jury's left the room. We'll come  
11:03:06 17 back at about 11:30 and hope to recess by 12:15 for lunch. We  
11:03:13 18 will see you at -- after the break.

11:03:16 19 The witness is not to discuss his testimony.

11:03:18 20 We're in recess.

11:03:20 21 THE COURTROOM DEPUTY: This court is now in recess.

11:03:22 22 (Recess from 11 :03 a.m. until 11:26 a.m.)

11:26:58 23 THE COURT: Thank you. Ae we ready to proceed from  
11:27:02 24 the government's perspective?

11:27:04 25 MR. McKENZIE: Yes, Your Honor.

11:27:05 1 THE COURT: Defense as well?

11:27:06 2 MS. TAYLOR: Yes, Your Honor.

11:27:07 3 THE COURT: Very well. Let's call for the jury.

11:28:25 4 THE COURTROOM DEPUTY: All rise for the jury.

11:28:36 5 (Jury in at 11:28 a.m.)

11:29:01 6 THE COURT: You may all be seated. The 15 members

11:29:04 7 of the jury have rejoined us after a break.

11:29:08 8 Welcome back. On behalf of the Court and the community,

11:29:12 9 thank you for the work you are doing. We will continue with

11:29:15 10 the testimony.

11:29:16 11 Counsel, you may proceed. The witness remains under

11:29:18 12 oath.

11:29:19 13 MS. TAYLOR: Thank you, Your Honor.

11:29:20 14 THE COURT: Yes.

11:29:22 15 BY MS. TAYLOR:

11:29:26 16 **Q.** Mr. Ramakdawala, before we broke, we had talked about

11:29:29 17 internal and external collaborations, and I had a question for

11:29:33 18 you in terms of your background.

11:29:35 19 During the course of your career, have you attended

11:29:37 20 industry conferences where speakers were brought in to talk

11:29:40 21 about particular areas of expertise?

11:29:42 22 **A.** Yes, ma'am.

11:29:43 23 **Q.** And can you give us examples of some of those conferences

11:29:46 24 you attended that are related to your job?

11:29:48 25 **A.** So I've attended multiple vertical flight societies,

11:29:54 1 which is the Society For Rotorcraft, the AIAA for Gas

11:30:01 2 Turbine Engine Technologies, and areas where we had talked

11:30:03 3 about composites and compressors.

11:30:06 4 Q. And were you ever a presenter at one of these  
11:30:08 5 conferences?

11:30:09 6 A. No.

11:30:10 7 Q. Okay. And have you presented during the course of your  
11:30:13 8 career, let's see, at -- on behalf of the Society For Internal  
11:30:19 9 Affairs?

11:30:19 10 A. Yes, ma'am.

11:30:19 11 Q. So that was in 2020 at the Fall Virtual Advanced  
11:30:24 12 Conference; is that correct?

11:30:24 13 A. Yes, ma'am.

11:30:25 14 Q. And can you tell us what you presented on?

11:30:29 15 A. So I gave a presentation on how to submit licenses such  
11:30:33 16 that the U.S. Department of Defense can understand and  
11:30:38 17 provide a recommendation to try to facilitate license  
11:30:42 18 applications.

11:30:43 19 Q. Okay. And last week we heard from Special Agent Hull  
11:30:48 20 that the Farnborough International Air Show is an  
11:30:53 21 international event where the aviation and aerospace industry  
11:30:53 22 gathers together.

11:30:54 23 Are you familiar with Farnborough?

11:30:56 24 A. Yes, ma'am.

11:30:56 25 Q. And did you present at Farnborough in 2016 as well?

11:30:59 1 A. Yes, ma'am.

11:31:00 2 Q. And you made a presentation where aviation professionals  
11:31:02 3 were invited?

11:31:03 4 A. Yes, ma'am.

11:31:03 5 Q. Was it well attended?

11:31:05 6 A. (Nonverbal sound.)

11:31:12 7 Q. We also talked about the structure of China's aviation  
11:31:15 8 industry, correct?

11:31:16 9 A. Yes, ma'am.

11:31:17 10 Q. Or you had been asked questions -- excuse me -- on your  
11:31:24 11 direct examination, correct?

11:31:24 12 A. Um-hmm.

11:31:24 13 Q. And you had talked about China having state-owned  
11:31:26 14 enterprises?

11:31:26 15 A. Yes, ma'am.

11:31:27 16 Q. And are responsible for designing, testing, and  
11:31:32 17 manufacturing military and commercial aircraft; is that  
11:31:34 18 correct?

11:31:34 19 A. Yes, ma'am.

11:31:34 20 Q. And the U.S. government does not have really comparable  
11:31:38 21 state-owned enterprises; is that correct?

11:31:40 22 A. As far as I'm aware, yes.

11:31:42 23 Q. And instead the government uses more of a bidding  
11:31:46 24 process. Would you agree with that?

11:31:47 25 A. That is correct.

11:31:47 1 Q. And basically what happens, as I understand it -- so  
11:31:51 2 please correct me if I'm wrong -- the government would hire  
11:31:53 3 what are independent contractors. So they wouldn't have a  
11:31:56 4 state-owned enterprise. They would work with an interested  
11:31:59 5 and successful bidder to create technologies according to  
11:32:03 6 government specifications. Is that accurate?

11:32:05 7 A. Yes, that's good.

11:32:06 8 Q. So the trade-off between the two systems, as I'll call  
11:32:11 9 it, the Chinese system and the American system, is one largely  
11:32:15 10 is that the government in China would own the technology,  
11:32:18 11 whereas, in the United States, the independent contractor  
11:32:21 12 would own the technology; is that correct?

11:32:23 13 A. As far as ownership on their side, I do not know their  
11:32:27 14 ownership structure.

11:32:29 15 Q. Okay. But you would agree with the latter part, that the  
11:32:31 16 contractor in the United States that is performing a contract  
11:32:35 17 on behalf of the government would remain the owner of that  
11:32:41 18 technology; is that correct?

11:32:41 19 A. In most cases. If the U.S. government decides to buy  
11:32:44 20 the data rights in their acquisition, only then would they  
11:32:47 21 have ownership of the data.

11:32:49 22 Q. Thank you. And we talked a little bit about these state-  
11:32:54 23 owned enterprises and a little bit about GE Aviation joint  
11:32:58 24 ventures. I'd like to ask just a few followup questions  
11:33:01 25 there.

11:33:02 1 GE Aviation has operations in China, correct?

11:33:04 2 A. That is correct.

11:33:05 3 Q. And GE conducts research, design, and manufacturing in

11:33:09 4 China; is that correct?

11:33:10 5 A. If it is, I'm not -- it could be among non-licensed

11:33:15 6 required entities. But that -- is that the license required

11:33:19 7 that I am aware of? No.

11:33:21 8 Q. Okay. Thank you. So are you familiar with a company

11:33:24 9 called Aviage?

11:33:26 10 A. Yes.

11:33:27 11 Q. Can you tell us what Aviage is?

11:33:30 12 A. I believe it's a joint venture between GE, and I can't

11:33:34 13 remember the foreign entities, where they develop avionic

11:33:37 14 systems for commercial aircraft in China.

11:33:41 15 Q. And would you agree with me that that foreign company is

11:33:43 16 AVIC.

11:33:44 17 A. Yes, I believe that is correct.

11:33:45 18 Q. And can you remind the jury what AVIC is?

11:33:48 19 A. That is the state-owned enterprises that develops and

11:33:51 20 produces aircraft and aircraft equipment for commercial and

11:33:57 21 military use.

11:33:57 22 Q. So GE Aviation is a clear contractor for the United

11:34:01 23 States government, correct?

11:34:04 24 A. Yep.

11:34:04 25 Q. And it also partners with Chinese entities such as AVIC?



11:34:07 1 A. Yes.

11:34:07 2 Q. And you had talked about in this particular case that GE

11:34:12 3 Aviation and AVIC have joined together to provide avionics.

11:34:18 4 Is that what I understood?

11:34:20 5 A. Yes.

11:34:20 6 Q. And can you describe what avionics are?

11:34:22 7 A. So avionics is basically the electrical systems on an

11:34:26 8 aircraft. Communication, navigation, the flight controlled

11:34:30 9 computers, those are the avionic systems.

11:34:32 10 Q. And Aviage is providing the avionics for the COMAC C919;

11:34:41 11 is that correct?

11:34:42 12 A. I believe so. I am not aware in detail.

11:34:44 13 Q. Would you be surprised if I told you that Aviage is

11:34:47 14 providing the avionics for the C919?

11:34:52 15 A. No, I wouldn't be surprised.

11:34:52 16 Q. And you talked about CFM International before. I believe

11:34:56 17 you said that this was a joint venture between GE Aviation and

11:34:59 18 Safran; is that correct?

11:35:00 19 A. That is correct.

11:35:01 20 Q. And it's that joint venture that is providing the LEAP

11:35:04 21 engines for the COMAC C919; is that correct?

11:35:07 22 A. That is correct.

11:35:08 23 Q. And in terms of COMAC, are you familiar with an entity

11:35:15 24 called COMAC America Corporation?

11:35:18 25 A. Not in detail, no.

11:35:20 1 Q. But are you aware that it's a subsidiary of the Chinese  
11:35:23 2 COMAC?

11:35:24 3 A. It's possible.

11:35:25 4 Q. And do you know that they have offices here in the United  
11:35:28 5 States in Newport Beach, California?

11:35:30 6 A. It's possible.

11:35:31 7 Q. And then in terms of COMAC and GE's continued  
11:35:35 8 relationship with different entities in China, are you  
11:35:39 9 familiar with the GCAT program?

11:35:42 10 A. A little.

11:35:43 11 Q. So if I tell you it's the Global Civil Aviation Talent  
11:35:48 12 Program, would that ring a bell?

11:35:49 13 A. No.

11:35:54 14 Q. So do you know that that is a leadership program that is  
11:35:56 15 a joint venture between COMAC and GE Aviation?

11:36:01 16 A. Okay.

11:36:01 17 Q. Are you aware that the purpose of that group, the GCAT  
11:36:06 18 group, is to develop engineering leaders and to support  
11:36:09 19 China's growing commercial aviation efforts?

11:36:12 20 A. I do not know.

11:36:13 21 Q. Do you know that as part of the GCAT leadership program  
11:36:18 22 students attend seminars?

11:36:20 23 THE COURT: Excuse me. Excuse me. Is there an  
11:36:23 24 objection?

11:36:23 25 MR. McKENZIE: Yes, Your Honor. The witness has

11:36:25 1 already stated that he doesn't know about this program.

11:36:27 2 THE COURT: I agree. The objection's sustained.

11:36:29 3 MS. TAYLOR: Thank you, Your Honor.

11:36:31 4 BY MS. TAYLOR:

11:36:31 5 Q. Are you aware that AVIC and COMAC provide funding for  
11:36:36 6 AECC that you talked about earlier?

11:36:37 7 A. Yes.

11:36:40 8 Q. So these are companies with whom GE Aviation does  
11:36:43 9 business, and they in turn provide funding to AECC; is that  
11:36:50 10 correct?

11:36:50 11 A. Yes, ma'am.

11:36:50 12 Q. Thank you. Would it surprise you to know that GE  
11:36:59 13 Aviation -- or, excuse me -- GE signed a letter of intent to  
11:37:03 14 purchase up to ten C919 aircraft?

11:37:07 15 A. I am aware.

11:37:19 16 Q. And we talked about manufacturers that are involved in  
11:37:22 17 designing and manufacturing composite fan blades and  
11:37:27 18 components for aircraft, correct?

11:37:29 19 A. Yes.

11:37:29 20 Q. Are you aware that back in 2014 Boeing contracted with  
11:37:35 21 AVIC to produce -- I might mispronounce this. I may need your  
11:37:40 22 help -- empennage tests for the 777 beginning in 2017?

11:37:45 23 A. Yes.

11:37:45 24 Q. Can you explain what empennage means?

11:37:49 25 A. If I had a picture, it would be easier.

11:37:51 1 So the empennage -- so the fuselage is like the long  
11:37:53 2 cigar tube, right? So if you look at an airplane and there  
11:37:57 3 is the wings, that long cigar tube is actually called the  
11:38:00 4 fuselage. At the very back it starts to kind of taper down  
11:38:03 5 and then they have the stabilizers and stuff. That  
11:38:06 6 tapering-down section is called the empennage.

11:38:12 7 Q. And so my question was to confirm that Boeing was  
11:38:15 8 manufacturing tips for the empennage from composite materials,  
11:38:18 9 correct?

11:38:19 10 A. Yes.

11:38:19 11 Q. I believe I have one more area of questioning about your  
11:38:25 12 background. In your role of division chief, you'd agree that  
11:38:30 13 strategic planning is beneficial to identifying your  
11:38:33 14 department's priorities?

11:38:34 15 A. Okay.

11:38:35 16 Q. Are you involved in strategic planning for your division?

11:38:39 17 A. Yes.

11:38:40 18 Q. And are you aware that your division -- the DTSA, excuse  
11:38:46 19 me -- issued a strategic plan that covers a five-year term?

11:38:51 20 A. Yes.

11:38:51 21 Q. Did you contribute to that five-year strategic plan?

11:38:55 22 A. Yes.

11:38:55 23 Q. And what part did you contribute?

11:38:56 24 A. To everything.

11:38:57 25 Q. Is there a particular subject area?

11:38:59 1 A. No.

11:39:01 2 Q. Okay. And what's the benefit of having a strategic plan

11:39:04 3 for an organization?

11:39:04 4 A. The goal is to guide the organization in its ability to

11:39:08 5 execute its duties.

11:39:10 6 Q. And in your area of work, your -- what are your duties?

11:39:15 7 Would you please summarize those?

11:39:16 8 A. Any review of any manned aircraft technology transfers.

11:39:19 9 Q. So in your role as division chief, you are tasked with

11:39:23 10 identifying technology priorities and creating policies where

11:39:26 11 none exist?

11:39:26 12 A. That is correct.

11:39:27 13 Q. And I assume that's a pretty complicated process?

11:39:32 14 A. It can be.

11:39:36 15 Q. Would you agree that the process is complicated by the

11:39:38 16 fact that other countries do not have the same rules and

11:39:42 17 regulations governing intellectual property as the United

11:39:45 18 States?

11:39:45 19 A. Most definitely.

11:39:46 20 Q. You would agree that one of the challenges DTSA faces in

11:39:51 21 making policies is that other countries have different laws

11:39:55 22 other than the U.S. governing legal technology transfers?

11:39:58 23 A. Yes.

11:39:58 24 Q. And isn't it true that some countries don't actually

11:40:01 25 enforce the laws they have with respect to technology

11:40:04 1 transfers and protection of intellectual property?

11:40:08 2 A. I don't know what they do.

11:40:10 3 Q. Are you aware that some countries do not have laws at all  
11:40:14 4 that govern intellectual property rights?

11:40:20 5 A. Possibly.

11:40:38 6 MS. TAYLOR: Your Honor, I am nearly done. I just  
11:40:43 7 want to gather my notes here.

11:40:45 8 THE COURT: Very well.

11:40:47 9 MS. TAYLOR: Thank you.

11:40:53 10 BY MS. TAYLOR:

11:40:53 11 Q. Mr. Ramakdawala, are you aware that Chinese researchers  
11:40:58 12 have been researching and testing composite fan blades and  
11:41:01 13 encasements for decades?

11:41:03 14 A. I am not aware for decades, no.

11:41:05 15 Q. What is your understanding of when Chinese researchers  
11:41:09 16 began researching that particular area?

11:41:12 17 A. I am aware of about the 2015 time frame.

11:41:14 18 Q. And what is it that keys you into the 2015?

11:41:17 19 A. That is when the AECC became a state-owned enterprise,  
11:41:23 20 and that is when I became aware of the CJ-1000A engine.

11:41:31 21 Q. And that engine is, I believe you testified, going to be  
11:41:33 22 manufactured from composite materials; is that correct?

11:41:35 23 A. That's what we're -- that's what we think.

11:41:38 24 Q. And then wouldn't that indicate that China has been  
11:41:42 25 researching composite blades and encasements for many years

11:41:47 1 prior?

11:41:47 2 A. Possibly.

11:41:48 3 Q. Would you be surprised to know that back in 2006 Chinese  
11:42:04 4 researchers were publishing on 3D fabric composites under  
11:42:08 5 string rates in the *Journal of Composite Materials*?

11:42:12 6 A. It's possible.

11:42:12 7 Q. And are you aware that in 2015 the Society of Plastic  
11:42:18 8 Engineers published a report -- or, excuse me -- published an  
11:42:22 9 article called "The Containment Capability of 2D Triaxial  
11:42:27 10 Braided Tape-Wound Composite Casing For Aero Engine"?

11:42:32 11 A. Didn't read it, so I don't know.

11:42:34 12 Q. And do you know that this was published by the Nanjing  
11:42:37 13 University of Aeronautics and Astronautics along with Key  
11:42:41 14 Laboratories in China?

11:42:42 15 A. I am not aware.

11:42:45 16 Q. But there is no secret that China and the United States  
11:42:48 17 are both developing aircraft technology; is that correct?

11:42:52 18 A. That is correct.

11:43:01 19 MS. TAYLOR: Your Honor, if I may have a moment to  
11:43:03 20 confer with counsel?

11:43:04 21 THE COURT: Yes.

11:43:05 22 MS. TAYLOR: Thank you.

11:43:05 23 (Pause.)

11:43:40 24 MS. TAYLOR: Your Honor, no further questions.

11:43:41 25 Thank you.

11:43:41 1 THE COURT: Very well. Thank you.

11:43:43 2 The government will have a chance to conduct redirect.

11:43:49 3 MR. McKENZIE: Thank you, Your Honor. I'll be  
11:43:51 4 brief.

11:43:51 5 THE COURT: Give her time to get her gear out of  
11:43:54 6 there.

11:43:56 7 MR. McKENZIE: Pardon, Your Honor? I didn't hear  
11:43:58 8 what you said.

11:43:59 9 THE COURT: Give her a moment.

11:44:00 10 MS. TAYLOR: Thank you.

11:44:09 11 THE COURT: Redirect.

11:44:12 12 **REDIRECT EXAMINATION**

11:44:14 13 BY MR. McKENZIE:

11:44:16 14 **Q.** On cross-examination, you were asked about Rolls-Royce's  
11:44:22 15 attempts to develop composite fan blades. Are you aware of  
11:44:31 16 Rolls-Royce's general attempts to develop fan blades out of  
11:44:35 17 composite materials?

11:44:36 18 **A.** Yes.

11:44:36 19 **Q.** Have they received FAA certification for these fan  
11:44:42 20 blades?

11:44:42 21 **A.** No. Their first attempt would be EASA, which is the  
11:44:49 22 European Airworthiness, and we are not aware of the EASA  
11:44:53 23 certification.

11:44:54 24 **Q.** Are you aware of prior attempts by Rolls-Royce to develop  
11:44:59 25 carbon fiber fan blades?



11:45:01 1 A. No.

11:45:01 2 Q. You were also asked about a publication in 2006 in China  
11:45:11 3 about composite materials. Are you aware of any manufacturer  
11:45:17 4 in China who developed and marketed carbon fiber fan blades in  
11:45:24 5 2006?

11:45:25 6 A. No.

11:45:25 7 Q. Are you aware of any commercial carbon fiber fan blades  
11:45:30 8 being manufactured and marketed in China today?

11:45:33 9 A. Not that are civil certified, no.

11:45:36 10 Q. Are you aware of any other manufacturer on the planet who  
11:45:43 11 has been able to get civil certification for carbon fiber fan  
11:45:48 12 blades other than General Electric Aviation?

11:45:54 13 A. No.

11:45:54 14 Q. When did General Electric Aviation get this  
11:45:58 15 certification, approximately?

11:45:58 16 A. About 1993, I believe.

11:46:02 17 Q. So for the past approximately 28 years, who, if anyone  
11:46:08 18 else, has matched GE on the market?

11:46:09 19 A. Nobody.

11:46:11 20 MR. MCKENZIE: Thank you, Your Honor. No further  
11:46:13 21 questions.

11:46:13 22 THE COURT: Very well. Recross on redirect, if any?

11:46:17 23 MS. TAYLOR: No further questions, Your Honor.

11:46:19 24 Thank you.

11:46:20 25 THE COURT: Very well. You are welcome to step down

11:46:24 1 and go about your way. Thank you, sir.

11:46:27 2 THE WITNESS: Thank you, Your Honor.

11:46:41 3 THE COURT: Ladies and gentlemen of the jury, it's a  
11:46:43 4 little early, but it's a good time to break for lunch. It's a  
11:46:47 5 quarter till noon. We will break for an hour and 15 minutes.  
11:46:51 6 And during the break, take the break. Don't talk about the  
11:46:53 7 case among yourselves or with anyone else. No independent  
11:46:58 8 research. Continue to keep an open mind. Enjoy your lunch.

11:47:02 9 We'll rise as you leave.

11:47:03 10 THE COURTROOM DEPUTY: All rise for the jury.

11:47:05 11 (Jury out at 11:47 a.m.)

11:47:41 12 THE COURT: The jury's left the room. We're about  
11:47:44 13 to break for lunch. Is there anything that requires the  
11:47:47 14 Court's attention?

11:47:48 15 MR. MCKENZIE: Your Honor, the last witness has  
11:47:50 16 requested to enter the courtroom now that he's done testifying  
11:47:54 17 so he can observe the rest of the proceedings until his plane  
11:47:59 18 leaves this evening, and so I would ask the Court's  
11:48:02 19 permission.

11:48:02 20 THE COURT: Any objection from the defense?

11:48:04 21 MR. KOHNEN: No objection, Your Honor.

11:48:06 22 THE COURT: Very well. And is the government going  
11:48:08 23 to be ready at 1 or should we break longer?

11:48:11 24 MR. MCKENZIE: The government will be ready with our  
11:48:13 25 next witness, Your Honor.

11:48:14 1 THE COURT: Defense have anything?

11:48:15 2 MS. TAYLOR: No, Your Honor.

11:48:16 3 THE COURT: All right. We're in recess until 1

11:48:18 4 o'clock.

11:48:19 5 THE COURTROOM DEPUTY: This court is in recess until

11:48:22 6 1 o'clock.

11:48:23 7 (Lunch recess from 11:48 a.m. until 1:05 p.m.)

01:06:21 8 THE COURT: We're back in the courtroom on the

01:06:25 9 record outside the presence of the jury.

01:06:34 10 If there is a microphone issue shortly before we break

01:06:38 11 for lunch, my thought is that that would get handled during

01:06:42 12 the lunch break, not while we keep the jury waiting.

01:06:46 13 Is the government ready to proceed?

01:06:49 14 MR. MCKENZIE: Yes, Your Honor. I just wanted to

01:06:51 15 notify the Court that our next witness, Mr. Hascoet, will be

01:06:56 16 speaking through an interpreter, Ms. Helene Conte, who will

01:07:02 17 need to be sworn in as well, Your Honor.

01:07:02 18 THE COURT: Very well. Thank you.

01:07:04 19 Is the government -- or defense ready to proceed?

01:07:09 20 MS. CORS: Yes, Your Honor.

01:07:09 21 THE COURT: Let's call for the jury, please.

01:08:31 22 THE COURTROOM DEPUTY: All rise for the jury.

01:08:33 23 (Jury in at 1:08 p.m.)

01:09:05 24 THE COURT: You may all be seated. Thank you.

01:09:09 25 The 15 members of the jury have rejoined us. Good

01:09:13 1 afternoon. We are going to continue to hear testimony from  
01:09:16 2 witnesses.

01:09:18 3 Who does the government call at this time?

01:09:20 4 MR. MCKENZIE: Your Honor, the government calls  
01:09:22 5 Frederic Hascoet.

01:09:25 6 THE COURT: If that gentleman would be willing to  
01:09:28 7 approach. He has an interpreter with him. I am going to put  
01:09:32 8 you over there. And if you would both pause for a minute.

01:09:40 9 Madam Interpreter, do you solemnly swear or affirm that  
01:09:44 10 you will correctly transcribe or translate these proceedings.

01:09:50 11 INTERPRETER CONTE: I do, Your Honor.

01:09:52 12 THE COURT: Very well. Do you want to tell him you  
01:09:54 13 just did that.

01:06:59 14 INTERPRETER CONTE: (Complies.)

01:10:02 15 THE COURT: Would you tell him I am going to  
01:10:03 16 administer the oath to tell the truth.

01:06:59 17 INTERPRETER CONTE: (Complies.)

01:10:08 18 THE COURT: Does he speak English at all?

01:10:11 19 THE WITNESS: A little bit.

01:10:13 20 THE COURT: Would you translate my oath, please.

01:10:16 21 Do you solemnly swear or affirm your testimony will be  
01:10:21 22 the truth subject to the penalty of perjury?

01:10:30 23 THE WITNESS: I do.

01:10:42 24 **FREDERIC HASCOET, PLAINTIFF WITNESS, SWORN**

01:10:42 25 THE COURT: This is going to go slowly because the

01:10:48 1 translation is not contemporaneous as it's been with the other  
01:10:55 2 translators.

01:11:01 3 Are you telling him that?

01:11:02 4 INTERPRETER CONTE: Um-hmm.

01:11:03 5 THE COURT: Did he hear it?

01:11:07 6 THE WITNESS: (Nodded head.)

01:11:09 7 THE COURT: Does he have a microphone in his ear?

01:11:12 8 INTERPRETER CONTE: No.

01:11:13 9 THE COURT: But he can hear you, right?

01:11:15 10 INTERPRETER CONTE: Yes.

01:11:15 11 THE COURT: You may proceed, counsel.

01:11:18 12 **DIRECT EXAMINATION**

01:11:19 13 BY MR. MCKENZIE:

01:11:20 14 **Q.** Good afternoon. I am Matthew McKenzie.

01:11:23 15 Will you please state your name and spell your last name  
01:11:26 16 for the record?

01:11:43 17 **A.** My name is Frederic Hascoet. My last name is spelled  
01:11:47 18 H-A-S-C-O-E-T.

01:11:50 19 **Q.** For whom do you work?

01:11:52 20 **A.** Safran Aircraft Engine.

01:12:02 21 **Q.** In what city do you work?

01:12:03 22 **A.** I work in the city of Ericobe [phonetic].

01:12:11 23 **Q.** In what country is that?

01:12:13 24 **A.** In France.

01:12:17 25 **Q.** What does Safran do?

01:12:19 1 A. Safran designs and manufactures jet engines.

01:12:33 2 Q. Does Safran have a joint venture with GE Aviation?

01:12:41 3 A. Yes.

01:12:45 4 Q. Do they build an engine together?

01:12:49 5 A. Yes.

01:12:52 6 Q. Which engine do they build together?

01:13:07 7 INTERPRETER CONTE: I need a repetition.

01:13:17 8 THE WITNESS: They've designed several together.

01:13:20 9 The first one was CFM56, and now they design several of them

01:13:26 10 called the LEAP.

01:13:29 11 BY MR. MCKENZIE:

01:13:29 12 Q. What is your job at Safran?

01:13:32 13 A. I am the industrialization project manager for the new

01:13:45 14 parts.

01:13:47 15 Q. How long have you worked for Safran?

01:13:49 16 A. 34 years.

01:13:57 17 Q. Does Safran have a subsidiary in China?

01:14:02 18 A. Yes.

01:14:07 19 Q. What is the name of that subsidiary?

01:14:10 20 A. Safran Suzhou.

01:14:19 21 Q. Are you familiar with the term "Snecma Suzhou"?

01:14:29 22 A. Yes, indeed. It's the old name for Safran.

01:14:34 23 Q. Safran Suzhou?

01:14:39 24 A. Yes, Safran Suzhou, indeed.

01:14:43 25 Q. What is the relationship between Safran and Safran

01:14:49 1 Suzhou?

01:14:59 2 **A.** Safran Suzhou is a plant where we manufacture the

01:15:06 3 parts, engine parts.

01:15:09 4 **Q.** As part of your duties, do you occasionally travel to

01:15:14 5 China for work?

01:15:16 6 **A.** Yes.

01:15:22 7 **Q.** Why do you need to go to China for work?

01:15:29 8 **A.** To follow -- to follow the progress, monitor the

01:15:41 9 progress with the manufacturing of the first parts at the

01:15:44 10 Suzhou plant.

01:15:46 11 **Q.** Do you interact with the Safran Suzhou employees in

01:15:51 12 China?

01:15:52 13 **A.** Yes.

01:15:59 14 **Q.** In the past ten years, approximately how many times have

01:16:06 15 you traveled to China?

01:16:07 16 **A.** About six or seven times.

01:16:19 17 **Q.** Does Safran issue you a work laptop computer?

01:16:33 18 **A.** Yes.

01:16:38 19 **Q.** Does that computer have an individual user ID and

01:16:44 20 password that is used exclusively by you?

01:16:53 21 **A.** Yes.

01:16:55 22 **Q.** Does Safran also provide you with a work email address?

01:17:08 23 **A.** Yes.

01:17:08 24 **Q.** Does Safran have policies in place for how you are to

01:17:19 25 handle your computer?

01:17:27 1 A. Yes.

01:17:29 2 Q. Are those rules and policies explained to employees such

01:17:37 3 as yourself?

01:17:43 4 A. Yes.

01:17:45 5 Q. Does Safran have rules and policies regarding the taking

01:17:50 6 of Safran computers overseas when you travel?

01:17:59 7 A. Yes, we do have specific guidelines.

01:18:10 8 Q. Are those guidelines also communicated to employees?

01:18:13 9 A. Every time we go on an assignment.

01:18:21 10 Q. Will you share with the jury some of the guidelines that

01:18:25 11 are explained to you by your company?

01:18:36 12 MS. CORS: Objection.

01:18:36 13 MR. MCKENZIE: Your Honor, there was an objection

01:18:39 14 from defense counsel.

01:18:45 15 THE COURT: Yes? I'm sorry.

01:18:45 16 MS. CORS: Your Honor, hearsay.

01:18:48 17 THE COURT: Can you rephrase, counsel?

01:18:51 18 MR. MCKENZIE: Your Honor, the government's not

01:18:52 19 seeking this for the truth of the matter asserted but for the

01:18:54 20 fact that it was said for how he handles his computer abroad.

01:19:00 21 THE COURT: You can proceed.

01:19:06 22 BY MR. MCKENZIE:

01:19:06 23 Q. Will you please explain some of those principles that are

01:19:10 24 told to you about how to handle your computer when you travel

01:19:12 25 abroad?



01:19:21 1 A. So, yes, we do have to keep it with us, on us at all  
01:19:38 2 times. We keep it with us in the plane. We do not work on  
01:19:42 3 it in public places. We cannot leave it in the trunk of a  
01:19:51 4 car.

01:20:02 5 Yes, and we have to use all passwords and pass phrases  
01:20:06 6 and encryption to access the computer.

01:20:12 7 Q. Does Safran have confidential company information that  
01:20:16 8 must be kept secured by employees?

01:20:26 9 A. Yes, I think so.

01:20:30 10 Q. Does this include certain design aspects of your engines?

01:20:39 11 A. Yes, certainly.

01:20:43 12 Q. I'd like to direct your attention now to November of  
01:20:53 13 2013. What were your job duties at that time?

01:21:00 14 A. We were beginning to assemble new LEAP parts at Safran  
01:21:22 15 Suzhou.

01:21:24 16 Q. In or about November 2013, did there come a time that you  
01:21:30 17 traveled to China?

01:21:36 18 A. Yes.

01:21:43 19 Q. In what -- to what city in China did you travel?

01:21:52 20 A. I went to Suzhou, Shanghai.

01:21:56 21 Q. What was the purpose of your travel?

01:21:59 22 A. To monitor the progress of the assembly of the first  
01:22:13 23 engine parts that I was in charge of. So on a quality  
01:22:26 24 standpoint. Also monitoring the deadlines and the  
01:22:29 25 deliveries that were to be made to France.

01:22:32 1 Q. In what hotel did you stay in China?

01:22:35 2 A. The Crowne Plaza.

01:22:44 3 Q. Did you bring a Safran-issued laptop with you in November

01:22:49 4 of 2013?

01:22:57 5 A. Yes.

01:22:58 6 Q. Did that laptop have a specific user name and password

01:23:06 7 given to you?

01:23:07 8 A. Yes.

01:23:14 9 Q. In 2013, did you also have a Safran-issued email address?

01:23:26 10 A. Yes.

01:23:28 11 Q. Approximately, how long did you stay in China in November

01:23:34 12 2013?

01:23:48 13 A. About nine days.

01:23:52 14 Q. Did you meet with Safran Suzhou employees?

01:23:54 15 A. Yes, of course.

01:24:01 16 Q. Are you familiar with an individual named Tian Xi?

01:24:12 17 A. Yes.

01:24:14 18 Q. Who is Tian Xi?

01:24:20 19 A. Tian Xi was an engineer at Suzhou that was working with

01:24:33 20 us on the manufacturing of the parts.

01:24:36 21 Q. Did you work with him during your visits to China?

01:24:40 22 A. Yes.

01:24:45 23 Q. I'd like to direct your attention now to January of 2014.

01:25:00 24 Did there come a time that you returned to China?

01:25:05 25 A. Yes, I did go back to China.

01:25:09 1 Q. Where in China did you go in January 2014?

01:25:17 2 A. Suzhou.

01:25:21 3 Q. Why did you return to Suzhou?

01:25:29 4 A. To continue with the project I was in charge of.

01:25:34 5 Q. In what hotel did you stay?

01:25:36 6 A. The Crowne Plaza.

01:25:42 7 Q. How long were you in China on this trip, approximately?

01:25:47 8 A. About five or six days.

01:25:55 9 Q. Did you bring your computer with you, your Safran

01:25:58 10 computer?

01:25:59 11 A. Yes, of course.

01:26:04 12 Q. During this January 2014 trip, did you work with Tian Xi?

01:26:17 13 A. Yes, I did.

01:26:19 14 Q. Approximately how many times did you see him during your

01:26:24 15 trip?

01:26:25 16 A. Every day that I worked.

01:26:35 17 Q. Did you eat dinner with him?

01:26:37 18 A. We might have. I don't remember exactly.

01:26:46 19 Q. Where did you keep your laptop during the working hours

01:26:53 20 while you were in China?

01:26:57 21 A. On a desk. Usually it stayed on a desk.

01:27:11 22 Q. Was that in an office in a Safran Suzhou building?

01:27:20 23 A. Yes, of course.

01:27:23 24 Q. Did Tian Xi also work in that building.

01:27:30 25 A. Yes.

01:27:32 1 Q. Where did you keep your laptop when you were eating  
01:27:37 2 meals, such as dinner?

01:27:47 3 A. It stayed on the desk.

01:27:49 4 Q. Did you bring your laptop computer home with you to  
01:27:57 5 France at the conclusion of your visit to China?

01:28:01 6 A. Yes, I did.

01:28:06 7 Q. At some point after you returned to France, did you  
01:28:11 8 discover that there was a problem with your computer?

01:28:13 9 A. Yes, when I tried connecting to the Safran site.

01:28:28 10 Q. And what did you discover to be the problem?

01:28:32 11 A. So the day that I was back to work in France I was not  
01:28:49 12 able to connect to the site, to the Safran site.

01:28:54 13 Q. Did you learn why you could not connect to the site?

01:29:02 14 A. The IT department told me I had a virus on my laptop,  
01:29:11 15 and they took my laptop.

01:29:15 16 THE COURT: Objection?

01:29:18 17 MS. CORS: Objection. Hearsay.

01:29:19 18 THE COURT: It's hearsay.

01:29:25 19 MR. McKENZIE: Your Honor, again, not being offered  
01:29:28 20 for the truth of the matter asserted, which we will deal with  
01:29:31 21 later, but to explain what he did next.

01:29:35 22 THE COURT: It's not offered for the truth of the  
01:29:36 23 matter. You may proceed.

01:29:38 24 BY MR. McKENZIE:

01:29:38 25 Q. After you were told that by your IT department, did they

01:29:43 1 then take your computer's hard drive from you?

01:29:46 2 A. Yes, indeed, they took the laptop. They took the hard  
01:29:59 3 drive. They replaced the hard drive.

01:30:03 4 Q. Does Tian Xi still work for Safran Suzhou?

01:30:14 5 A. No.

01:30:16 6 Q. Do you know what happened to him?

01:30:17 7 A. Yes.

01:30:22 8 Q. What was that?

01:30:22 9 A. He was fired.

01:30:29 10 MR. McKENZIE: Your Honor, I have no further  
01:30:31 11 questions at this time.

01:30:32 12 THE COURT: Very well. The lawyer for the defendant  
01:30:39 13 has an opportunity to ask questions of the witness now.

01:30:47 14 Counsel.

01:30:51 15 MS. CORS: Thank you, Your Honor.

01:30:52 16 **CROSS-EXAMINATION**

01:30:58 17 BY MS. CORS:

01:30:59 18 Q. Jean Cors on behalf of Mr. Xu. Good afternoon,  
01:31:03 19 Mr. Hascoet.

01:31:10 20 During your direct examination, you were asked about the  
01:31:13 21 job responsibilities you had in China Suzhou in January of  
01:31:22 22 2014, correct?

01:31:23 23 A. Yes.

01:31:33 24 Q. And as I understood your testimony, your title at the  
01:31:38 25 time was -- was it industrialization pilot; is that correct?

01:31:52 1 A. That's correct.

01:31:55 2 Q. And could you explain to the jury in a little more detail  
01:31:58 3 what that job entailed on a day-to-day timetable?

01:32:15 4 A. We were -- I was part of a team. We were making sure  
01:32:43 5 that the parts that were being built, manufactured in Taiwan  
01:32:48 6 were assembling properly in China. Also making sure that  
01:32:51 7 some of the tools that we were receiving from France were  
01:32:54 8 functioning properly. So operation by operation, making  
01:33:10 9 sure that each industrial tool was working properly.

01:33:13 10 Q. Okay. So you were focused on working on the industrial  
01:33:17 11 tools, I understand, correct?

01:33:20 12 A. That's correct.

01:33:23 13 Q. And this project, what was being assembled during that  
01:33:28 14 January 2014 time frame in China?

01:33:40 15 A. We were assembling steel segments for the low-pressure  
01:34:06 16 turbine for the LEAP engine.

01:34:11 17 Q. So these -- the parts for these steel segments were  
01:34:15 18 coming from Taiwan; is that correct?

01:34:20 19 A. From Taiwan and France.

01:34:27 20 Q. So the parts themselves were not being manufactured in  
01:34:31 21 Suzhou. They were being shipped to Suzhou for assembly there;  
01:34:38 22 is that correct?

01:34:41 23 A. That's correct.

01:34:42 24 Q. And with respect to these parts, it sounds like you  
01:34:49 25 weren't involved in any of the design of these parts; is that

01:34:55 1 correct?

01:34:55 2 A. No, I wasn't.

01:35:02 3 Q. Or am I correct, in the manufacture of the parts  
01:35:07 4 themselves?

01:35:13 5 A. No, I was. I was.

01:35:17 6 Q. In the manufacture. And with respect to the product that  
01:35:23 7 was being assembled in Suzhou, that didn't involve composite  
01:35:30 8 fan blades, did it?

01:35:31 9 A. No.

01:35:39 10 Q. Thank you. On your direct testimony you also talked  
01:35:47 11 about a colleague of yours in China, Tian Xi, correct?

01:35:59 12 A. That's correct.

01:36:00 13 Q. And what was Mr. Tian Xi's role at that facility in  
01:36:10 14 January of 2014?

01:36:15 15 A. He was the manager for the method part of the project.

01:36:24 16 Q. Okay. And is it safe to assume that as the manager for  
01:36:28 17 that project, that it would be expected that you and he would  
01:36:33 18 collaborate and communicate during the day regarding the  
01:36:35 19 assembly process?

01:36:48 20 A. That's correct.

01:36:51 21 Q. So you worked together on this project?

01:36:54 22 A. Yes.

01:36:58 23 Q. And I take it, it wouldn't be uncommon if you went to  
01:37:03 24 dinner or socialized with a colleague who also spoke French in  
01:37:14 25 China?

01:37:15 1 A. Yes. I don't remember having dinner with him by  
01:37:29 2 myself. We had other colleagues with us.

01:37:34 3 Q. Okay. And you talked about on your direct testimony  
01:37:42 4 security measures that Safran has put in place with respect to  
01:37:47 5 computers or other devices that a -- personnel like you would  
01:37:52 6 take to China, correct?

01:38:05 7 A. That's correct.

01:38:07 8 Q. And is it your understanding that part of the reason for  
01:38:11 9 some of these protocols is that China is known to monitor and  
01:38:16 10 surveil visitors who come to China?

01:38:19 11 A. Very honestly, I do not know. I suppose so.

01:38:40 12 Q. Okay. With respect to the guidelines that you were  
01:38:44 13 discussing, I assume some of these guidelines involve what  
01:38:50 14 information may be stored on a laptop and what information  
01:38:55 15 should be stored more securely on the government's data  
01:38:58 16 management system; is that correct?

01:39:16 17 A. I do not understand the question about the database  
01:39:19 18 from the government.

01:39:21 19 Q. So some documents could be stored on a hard drive of a  
01:39:24 20 computer, correct?

01:39:24 21 A. (In foreign language.)

01:39:36 22 Q. Or they could be stored in a data management system  
01:39:39 23 maintained by the company, correct?

01:39:56 24 A. Yes, we had access to the database for the elements,  
01:40:02 25 the components that we were in charge of.



01:40:05 1 Q. Okay. And with respect to the guidelines, rules, and  
01:40:10 2 regulations regarding where to save documents, whether on a  
01:40:13 3 laptop or whether they should be stored on the company's data  
01:40:19 4 management system, I assume you followed those guidelines  
01:40:22 5 while in China?

01:40:24 6 A. Yes, absolutely.

01:40:38 7 Q. Thank you.

01:40:40 8 MS. CORS: A minute, Your Honor?

01:40:42 9 THE COURT: Yes.

01:40:43 10 (Pause.)

01:40:52 11 MS. CORS: I have no further questions, Your Honor.

01:40:54 12 Thank you, Mr. Hascoet.

01:41:02 13 THE COURT: The attorney for the government gets to  
01:41:05 14 ask more questions if desired.

01:41:11 15 Redirect?

01:41:18 16 MR. MCKENZIE: No, Your Honor. Thank you.

01:41:21 17 THE COURT: This witness has finished his testimony.

01:41:35 18 Au revoir. You may leave the courtroom.

01:41:41 19 Should we take a break or roll right into the next  
01:41:46 20 witness?

01:41:48 21 MS. GLATFELTER: Your Honor, if we are going to take  
01:41:50 22 a break shortly after starting the witness, I would assume  
01:41:53 23 we'd take a break now. It's up --

01:41:57 24 THE COURT: All right. We will take a break now.  
01:41:59 25 Thank you for your understanding. We're going to break until

## HASCOET - CROSS (Cors)

74

01:42:02 1 2 o'clock.

01:42:03 2 During the break, take the break. Don't discuss it among

01:42:06 3 yourselves or with anyone else. No independent research.

01:42:09 4 Continue to keep an open mind.

01:42:11 5 We'll rise as you leave.

01:42:13 6 THE COURTROOM DEPUTY: All rise for the jury.

01:42:15 7 (Jury out at 1:42 p.m.)

01:42:52 8 THE COURT: 15-minute recess.

01:42:58 9 THE COURTROOM DEPUTY: This court is in recess for

01:43:00 10 15 minutes.

01:43:01 11 (Recess from 1:43 p.m. until 2:0 p.m.)

02:00:50 12 THE COURT: Bon jour. Is the government ready to

02:00:53 13 proceed?

02:00:54 14 MS. GLATFELTER: Yes, we are, Your Honor.

02:00:56 15 THE COURT: The defense as well?

02:01:01 16 MS. TAYLOR: Yes, Your Honor.

02:01:01 17 THE COURT: Very well. Let's call for the jury.

02:02:18 18 THE COURTROOM DEPUTY: All rise for the jury.

02:02:21 19 (Jury in at 2:02 p.m.)

02:02:52 20 THE COURT: You may all be seated.

02:02:54 21 The 15 jurors have rejoined us. We will continue to hear

02:03:00 22 testimony.

02:03:02 23 Who does the government call at this time?

02:03:04 24 MS. GLATFELTER: Your Honor, the government calls

02:03:06 25 Mr. Sun Li.

02:03:08 1 THE COURT: If he would approach. We are going to  
02:03:14 2 put you over here.

02:03:17 3 And if would you pause and raise your right hand for the  
02:03:22 4 oath to tell the truth. Do you solemnly swear or affirm the  
02:03:25 5 testimony you give today will be the truth, subject the  
02:03:29 6 penalty of perjury?

02:03:31 7 THE WITNESS: I do.

02:03:31 8 **SUN LI, PLAINTIFF WITNESS, SWORN**

02:03:31 9 THE COURT: Very well. We will put you in this  
02:03:33 10 chair up here.

02:03:34 11 THE WITNESS: Thank you.

02:03:35 12 THE COURT: Once you get settled and close to the  
02:03:38 13 microphone, we will begin with the questioning.

02:03:43 14 Ms. Glatfelter, you may proceed when you are ready.

02:03:47 15 MS. GLATFELTER: Thank you, Your Honor.

02:03:49 16 THE COURT: Very well.

02:03:51 17 **DIRECT EXAMINATION**

02:03:51 18 BY MS. GLATFELTER:

02:03:52 19 **Q.** Mr. Li, can you state and spell your name for the record?

02:03:54 20 **A.** Last name L-I. First name S-U-N.

02:03:57 21 **Q.** Thank you. What state do you currently reside in?

02:04:01 22 **A.** I live in the Washington state.

02:04:03 23 **Q.** Are you currently employed?

02:04:04 24 **A.** Yes.

02:04:06 25 **Q.** Okay. And do you have a bachelor's degree?

LI - DIRECT (Glatfelter)

76

02:04:09 1 A. Yes.

02:04:10 2 Q. Where is that from?

02:04:11 3 A. It was from Nanjing University in China.

02:04:16 4 Q. And do you have a master's degree?

02:04:18 5 A. No.

02:04:21 6 Q. Are you pretty close to obtaining the master's degree?

02:04:24 7 A. One credit short.

02:04:26 8 Q. And what did you study for your bachelor's degree and

02:04:31 9 your master's degree?

02:04:35 10 A. My bachelor's degree is in geography.

02:04:38 11 Q. Okay. How about your master's? Or what you are studying

02:04:42 12 for for your master's.

02:04:43 13 A. Right. I was studying geographical information system,

02:04:50 14 known as GIS.

02:04:52 15 Q. Now, do you have work experience in the area of IT or

02:04:58 16 information technology?

02:04:58 17 A. I do.

02:04:59 18 Q. And within the area of IT, do you have experience with

02:05:03 19 computer program management?

02:05:04 20 A. Yes, I do.

02:05:06 21 Q. Do you have special training or licensing -- I'm sorry --

02:05:12 22 licenses in conjunction or about project management?

02:05:16 23 A. Yes. The Project Management Institute issues a

02:05:23 24 certificate called Project Management Professional, PMP in

02:05:31 25 short. So I have that certification.

LI - DIRECT (Glatfelter)

77

02:05:32 1 Q. And, generally, can you explain to the jurors what  
02:05:35 2 program management is?

02:05:36 3 A. Sure. So it's commonly known as portfolio program and  
02:05:51 4 the project managements, the PPPM. It's mostly known,  
02:05:56 5 though, to general public as a project management.

02:06:00 6 So that industry or field focus on productivity,  
02:06:11 7 meaning that with limited resource, time, budget you deliver  
02:06:20 8 business the results, the benefits that meet their business  
02:06:26 9 needs.

02:06:28 10 Q. Thank you. Now, at some point during your experience  
02:06:32 11 with IT work, did you work for the Boeing Company?

02:06:35 12 A. I did.

02:06:38 13 Q. For how many years?

02:06:39 14 A. About ten years.

02:06:43 15 Q. And, generally, what kind of business is Boeing in, or  
02:06:48 16 involved in?

02:06:49 17 A. As far as I know, Boeing is a global civil and defense  
02:06:59 18 manufacturer.

02:07:00 19 Q. Of aircrafts?

02:07:02 20 A. Aircrafts, yeah.

02:07:04 21 Q. And when you were working at Boeing, what were the  
02:07:09 22 positions that you held there?

02:07:10 23 A. I held two positions in history of the ten years. The  
02:07:18 24 first five years I was a technology specialist, and the  
02:07:23 25 second five years I was a project manager for IT.

LI - DIRECT (Glatfelter)

78

02:07:28 1 Q. And what does a technology specialist do?

02:07:35 2 A. I was responsible for data backup and archive, which  
02:07:40 3 means you stored the data produced by engineering, design,  
02:07:48 4 manufacturing, whatever the process produce the data onto  
02:07:55 5 computer media, and keep it there for as long as airplane's  
02:08:02 6 flying, any model. That's per FAA regulations. So the  
02:08:06 7 Boeing has to keep any engineering data when that model  
02:08:13 8 airplane is in service, just in case they crash or something  
02:08:19 9 happens, they can go back to check the design manufacturing  
02:08:23 10 processes to make sure they can find the flaws or problems.

02:08:28 11 Q. And so your part of that was backing up the data and  
02:08:32 12 archiving the data, correct?

02:08:33 13 A. Correct.

02:08:34 14 Q. Okay. And you said that was the first five years that  
02:08:37 15 you were at Boeing, right?

02:08:38 16 A. Yes.

02:08:39 17 Q. And the last five years you were at Boeing you did  
02:08:43 18 program management, I believe?

02:08:45 19 A. Yes, program and project management.

02:08:47 20 Q. Can you explain to the jury what kind of responsibilities  
02:08:51 21 you had in that role?

02:08:53 22 A. Sure. I was working in this business unit of the  
02:09:00 23 Boeing Company called IT International where I was mainly  
02:09:07 24 focus on support Boeing's IT workforce globally.  
02:09:12 25 Specifically, I was covering Russia region, which includes

LI - DIRECT (Glatfelter)

79

02:09:19 1 Ukraine, eastern Europe.

02:09:21 2 Q. Okay. And during those last five years at Boeing, at  
02:09:28 3 some point were you contacted by an individual named Qu Hui?

02:09:33 4 A. Yes.

02:09:33 5 Q. How did he contact you?

02:09:40 6 A. I believe initially via email.

02:09:44 7 Q. And before you began communicating via email, had you met  
02:09:48 8 him before or talked to him ever?

02:09:50 9 A. No.

02:09:53 10 Q. Do you know how he obtained your contact information?

02:09:57 11 A. Mr. Xu mentioned in his email that he got my name  
02:10:03 12 through some kind of alumni organization or a catalog, and  
02:10:12 13 also through the department head, I guess the dean of the  
02:10:16 14 department.

02:10:18 15 And also he mentioned that he contact my dad, who is a  
02:10:27 16 professor of that department, and I actually was his student  
02:10:34 17 because I studied geography; he taught geography. So  
02:10:39 18 everybody in the department knows me pretty well. I grow up  
02:10:42 19 on campus, so I know a lot of professors.

02:10:48 20 Q. When you say that he taught you, are you referring to  
02:10:50 21 your father?

02:10:50 22 A. Yes.

02:10:51 23 Q. And we'll look at those emails in a moment.

02:10:53 24 You said that the initial contact was through email, and  
02:10:57 25 did there come a point in time when you met Mr. Qu Hui in

LI - DIRECT (Glatfelter)

80

02:11:06 1 person?

02:11:06 2 A. Yes, later.

02:11:07 3 Q. Can you tell the jury how that happened?

02:11:09 4 A. So I visit my dad who lives in China, Nanjing, city of

02:11:15 5 Nanjing, on an annual basis. So I was planning a trip to go

02:11:23 6 home to visit him, and then I was contacted by Mr. Xu that

02:11:32 7 if it's convenient to meet that time, while I was in

02:11:38 8 Nanjing. So that's how it happened.

02:11:40 9 Q. Okay. And did you meet Mr. Qu Hui in Nanjing?

02:11:46 10 A. Yes.

02:11:46 11 Q. Where did you meet him?

02:11:48 12 A. So I stayed in hotel which is close to where my

02:11:53 13 father's apartment is. We met in the hotel lobby for about

02:12:02 14 15, 30 minutes that day, on that particular day.

02:12:07 15 Q. Okay. Was Mr. Qu Hui alone or was there other people at

02:12:13 16 the meeting?

02:12:13 17 A. There definitely more than himself, but I do not

02:12:19 18 remember is two or three persons. Maybe it's two other

02:12:23 19 people with him.

02:12:26 20 Q. And you said the meeting was about 15 to 30 minutes long?

02:12:30 21 A. Yeah. I don't really recall. People tend to think --

02:12:37 22 time flies fast, right? You always underestimate. But my

02:12:42 23 memory, it probably tells me about 30 minutes max.

02:12:47 24 Q. Okay. And what happened during the meeting?

02:12:50 25 A. So we had a couple of email exchanges that Mr. Xu told



02:13:00 1 me he is interested to learn computer security, or Internet  
02:13:06 2 security, or information security. I don't know which term  
02:13:09 3 he use. But it's about security of IT.

02:13:15 4 My response was, although I have done some work, but  
02:13:21 5 that's not my specialty. Especially, I was in project  
02:13:29 6 management for so many years. Technology evolves so quick.  
02:13:33 7 So my knowledge is probably out of date by that time. But,  
02:13:37 8 however, I will be willing to share my experience and the  
02:13:42 9 knowledge about the project management with him.

02:13:46 10 So that meeting, since I didn't -- because I didn't --  
02:13:56 11 could not or did not provide him the network security thing,  
02:14:02 12 he was instead asking, say maybe we could just sit down and  
02:14:06 13 get to know each other, sort of like introductory session.  
02:14:10 14 Then maybe we can in future continue keep contact, see where  
02:14:16 15 it goes. So that meeting was basically about introduction  
02:14:21 16 sessions.

02:14:22 17 **Q.** Okay. And after the meeting, were you interested in  
02:14:24 18 continuing the relationship?

02:14:25 19 **A.** I said yes, because as a PMP certification from PMI, we  
02:14:36 20 have obligation to share, collaborate, educate our peers,  
02:14:43 21 the general public about the best practices of project  
02:14:49 22 management, how do we making business work, how do we  
02:14:54 23 achieve the maximum benefits for the business.

02:14:57 24 **Q.** Okay. And you are distinguishing project management from  
02:15:02 25 your IT work; is that right? You are distinguishing -- you

LI - DIRECT (Glatfelter)

82

02:15:13 1 are distinguishing your project management work that you'd be  
02:15:16 2 willing to share versus your knowledge about Internet  
02:15:19 3 security; is that right?

02:15:19 4 A. Correct, yes.

02:15:21 5 Q. Okay. Did you meet with Mr. Qu Hui again after that  
02:15:27 6 meeting?

02:15:29 7 A. No. That was the only encounter between us.

02:15:30 8 Q. The meeting took place in a lobby. Did Mr. Qu Hui  
02:15:39 9 inquire about meeting someplace else?

02:15:41 10 A. Initially, he asked if we could meet in my room. My  
02:15:45 11 room so small. And also I didn't want to mix business and  
02:15:47 12 personal matters, and so I said why don't we meet lobby,  
02:15:51 13 which have a bigger room and is in the public open space.  
02:15:55 14 So it's all pure business from my perspective.

02:15:59 15 Q. Okay.

02:15:59 16 A. That way.

02:16:00 17 Q. That's what you mean about business and personal matters?

02:16:04 18 A. Sorry?

02:16:04 19 Q. You said that you didn't want to mix business and  
02:16:07 20 personal matters?

02:16:08 21 A. Yeah. I didn't want to really mix my private life with  
02:16:12 22 whatever the business we were going to talk about.

02:16:15 23 Q. Any other reasons?

02:16:18 24 A. No. Other than size of room is too small to  
02:16:23 25 accommodate anybody, but I mainly didn't want to mix those

LI - DIRECT (Glatfelter)

83

02:16:29 1 two things together.

02:16:30 2 Q. After the meeting -- or during the meeting -- I'm  
02:16:34 3 sorry -- did Mr. Qu Hui talk about reimbursing you for your  
02:16:39 4 travel?

02:16:40 5 A. I don't believe it was mentioned during the meeting,  
02:16:46 6 but it was afterwards in a email follow-up.

02:16:49 7 Q. And did you receive that reimbursement?

02:16:56 8 A. I never wanted to have that reimbursement.

02:17:00 9 Q. Okay. Can you explain to the jury why you didn't want  
02:17:03 10 reimbursement?

02:17:04 11 A. I visit my dad annually anyway. I regard this as  
02:17:11 12 private trip. I was willing to spare a day of my own time  
02:17:16 13 to meet Mr. Xu maybe. I don't know what his real identity  
02:17:23 14 was. But to me, to take advantage of that money is  
02:17:30 15 unethical because we, as PMP, would go by PMI code of ethics  
02:17:38 16 and conduct. I think it's unethical to take that money.

02:17:44 17 Q. So you didn't receive the reimbursement?

02:17:46 18 A. He kept asking me about give him the travel itinerary,  
02:17:55 19 ticket information. I said, no, thank you. I didn't want  
02:17:58 20 him to have that.

02:17:58 21 Q. If we can -- you said that you received initially an  
02:18:03 22 email from Mr. Qu Hui.

02:18:06 23 MS. GLATFELTER: If we could show the witness  
02:18:08 24 Exhibit 90a.

02:18:12 25 THE COURT: Yes.

LI - DIRECT (Glatfelter)

84

02:18:12 1 BY MS. GLATFELTER:

02:18:13 2 Q. Mr. Li, do you recognize Government's Exhibit 90a on your  
02:18:17 3 screen?

02:18:26 4 A. I do.

02:18:26 5 Q. Is this the email correspondence, generally, you were  
02:18:30 6 referring to with Mr. Qu Hui?

02:18:34 7 A. Yes.

02:18:38 8 Q. And did you receive these emails on your own email  
02:18:42 9 account?

02:18:42 10 A. Correct, yes.

02:18:45 11 Q. Did you have an opportunity to review those before you  
02:18:49 12 testified here today?

02:18:50 13 A. I did.

02:18:54 14 MS. GLATFELTER: Your Honor, I'd move to admit  
02:18:56 15 Government's Exhibit 90a.

02:18:58 16 THE COURT: Any objection?

02:19:00 17 MS. TAYLOR: No objection.

02:19:00 18 THE COURT: It's admitted.

02:19:02 19 (Government Exhibit 90a was received in evidence.)

02:19:02 20 MS. GLATFELTER: And if we can publish these to the  
02:19:04 21 jury?

02:19:04 22 THE COURT: Yes.

02:19:11 23 BY MS. GLATFELTER:

02:19:11 24 Q. Mr. Li, do you see an email address on there from Mr. Qu  
02:19:15 25 Hui?

LI - DIRECT (Glatfelter)

85

02:19:16 1 A. I do remember that email address.

02:19:19 2 Q. Okay. And what is the email address?

02:19:22 3 A. It's jastquhui@gmail.com.

02:19:29 4 Q. And the emails we are looking at are in Chinese, correct?

02:19:32 5 A. Correct. The content was.

02:19:35 6 MS. GLATFELTER: Okay. I'd like to show the witness

02:19:37 7 Exhibit 90b.

02:19:43 8 THE COURT: Very well.

02:19:48 9 BY MS. GLATFELTER:

02:19:49 10 Q. Mr. Li, do you recognize these as the English versions of

02:19:52 11 the emails we were looking at before? Or the translated

02:19:56 12 versions?

02:19:59 13 A. Are you asking me? Sorry.

02:20:01 14 Q. Yes. Do you recognize these as the English translated

02:20:05 15 versions of the emails we were just looking at?

02:20:07 16 A. Yes, I do.

02:20:09 17 MS. GLATFELTER: Move to admit and publish.

02:20:11 18 THE COURT: Any objection?

02:20:13 19 MS. TAYLOR: No objections.

02:20:14 20 THE COURT: It's admitted. Publish.

02:20:17 21 (Government's Exhibit 90b was received in evidence.)

02:20:17 22 BY MS. GLATFELTER:

02:20:17 23 Q. I'd like to turn to page 2 first.

02:20:29 24 Mr. Li, can you see that on your screen okay?

02:20:32 25 A. Yeah, I can see it.

LI - DIRECT (Glatfelter)

86

02:20:33 1 Q. Great. Mr. Li, is this the first email that you  
02:20:35 2 received?

02:20:36 3 A. I believe so.

02:20:42 4 MS. GLATFELTER: Can you not see it on your screens?  
02:20:50 5 Can we publish it to the jury?

02:20:52 6 THE COURT: Yes. Did somebody kick the screen?

02:20:56 7 THE JUROR: We have some that are static, some that  
02:20:59 8 are not.

02:21:01 9 THE COURT: All right. We'll take a moment.  
02:21:04 10 Somebody younger than I may assist you.

02:21:14 11 So what jurors can't see a screen that works?

02:21:23 12 (Hands raised.)

02:21:17 13 THE COURT: Okay, we need to get it fixed. If you  
02:21:19 14 will bear with us.

02:21:37 15 Still missing? No. We have thumbs up.

02:21:41 16 Is there any juror who cannot see a working screen?

02:21:41 17 (No response.)

02:21:44 18 THE COURT: I'm glad I was able to fix it for you.

02:21:48 19 You may proceed.

02:21:51 20 BY MS. GLATFELTER:

02:21:52 21 Q. Mr. Li, was this the first email that you received from  
02:21:58 22 Mr. Qu Hui?

02:22:00 23 A. Yes.

02:22:04 24 Q. What is the date of that email?

02:22:06 25 A. That's September 17, 2015.

02:22:09 1 Q. And do you see his name at the bottom, how he identified  
02:22:14 2 himself?

02:22:15 3 A. Yes, correct.

02:22:16 4 Q. And what was that name?

02:22:18 5 A. Qu Hui.

02:22:22 6 Q. And would you mind reading the email for the jury.

02:22:25 7 A. Sure.

02:22:27 8 "Through the introduction of Deputy Dean KE" -- I think  
02:22:31 9 it means Ke, like that, in Chinese -- "of Department of  
02:22:36 10 Geographical Science of Nanjing University, I paid an  
02:22:42 11 announced visit to your father.

02:22:45 12 "Jiangsu Provincial Association of International  
02:22:50 13 Science and Technology Development is a secondary  
02:22:53 14 association under Provincial Association of Science and  
02:22:57 15 Technology. We mainly work on strengthening science and  
02:23:02 16 technology exchanges and the calibrations between China and  
02:23:08 17 other countries.

02:23:12 18 "We learned about you" -- I think it is spelling  
02:23:17 19 something here -- "through the overseas students' database  
02:23:21 20 from Provincial Overseas Chinese Affairs Office. We think  
02:23:27 21 your information is compatible with the needs of Chinese  
02:23:32 22 technology. Currently, Chinese network development  
02:23:37 23 capacity -- capability is relatively immature, so we would  
02:23:43 24 like to invite you for an exchange next time you return to  
02:23:48 25 China.

LI - DIRECT (Glatfelter)

88

02:23:49 1 "Thanks. Qu Hui."

02:23:53 2 Q. Now, Mr. Li, you had said -- mentioned before that you  
02:23:57 3 believe that he received your contact information from some  
02:23:59 4 sort of database. Is this the database that you are referring  
02:24:02 5 to.

02:24:03 6 A. I personally don't have the knowledge, but reading  
02:24:08 7 email, it sounds like it.

02:24:10 8 Q. I mean, this is what he told you how he received your  
02:24:12 9 contact information --

02:24:13 10 A. Yes.

02:24:13 11 Q. -- from this database? That's what you were referring to  
02:24:16 12 earlier?

02:24:16 13 A. Correct.

02:24:17 14 Q. And in this email, does he mention that he visited your  
02:24:21 15 father?

02:24:22 16 A. Yes.

02:24:28 17 Q. Based on your -- based on the visit to your father, did  
02:24:33 18 you feel any obligation to respond to this email?

02:24:38 19 MS. TAYLOR: Objection, Your Honor.

02:24:39 20 THE COURT: There is an objection.

02:24:41 21 MS. TAYLOR: Leading. I have tried to be patient  
02:24:44 22 but there have been a number --

02:24:45 23 THE COURT: I heard "leading," and I am going to  
02:24:50 24 sustain the objection and ask you to rephrase it.

02:24:50 25 MS. TAYLOR: Thank you.



LI - DIRECT (Glatfelter)

89

02:24:50 1 BY MS. GLATFELTER:

02:24:50 2 Q. What, if any, obligation did you feel to respond to this  
02:24:56 3 email?

02:24:57 4 A. I do feel obligated to respond to this email.

02:25:00 5 Q. For what reason?

02:25:03 6 A. For one thing, that my professional promote the sharing  
02:25:08 7 and the collaboration between peers of my profession. So is  
02:25:15 8 I strongly felt I have obligation to follow that principle,  
02:25:23 9 I guess, from PMI.

02:25:25 10 Q. Okay. And when you say "PMI," you're talking about  
02:25:28 11 program management?

02:25:28 12 A. Project Management Institute.

02:25:31 13 Q. As opposed to information technology or network security?

02:25:36 14 A. Yes, correct.

02:25:38 15 MS. GLATFELTER: Okay. If we can go to page 1. And  
02:25:44 16 scroll down to the bottom.

02:25:44 17 BY MS. GLATFELTER:

02:25:51 18 Q. Did you respond to -- do you know if you responded to his  
02:25:56 19 email?

02:25:57 20 A. Could you repeat?

02:25:58 21 Q. Did you respond to his email?

02:26:00 22 A. Yes.

02:26:08 23 Q. Okay. On what date did you respond to him?

02:26:12 24 A. Could you scroll down a little bit? I can't see the  
02:26:17 25 stamp, the time stamp.

LI - DIRECT (Glatfelter)

90

02:26:21 1 Okay. Thank you.

02:26:22 2 It was 2015, October 6.

02:26:25 3 Q. Okay. If we look at -- the bottom email is the one I am

02:26:29 4 referring to, September 22, 2015.

02:26:32 5 A. Oh, okay. Sorry.

02:26:34 6 Q. The one that starts "Greetings."

02:26:38 7 A. Right. It's September 22, 2015.

02:26:41 8 Q. So if you -- your response versus page 1 of 2, if we

02:26:48 9 could read your response. If you can go ahead and read that?

02:26:53 10 A. Just make sure, you want me to read my response?

02:26:57 11 Q. Yes.

02:26:57 12 A. Okay. Thank you.

02:26:58 13 "Mr. Qu Hui, Greetings.

02:27:01 14 "Glad to receive your email. Thank you very much for

02:27:04 15 providing the opportunity to exchange with the counterparts

02:27:09 16 and the students in China. Due to work-related reasons, I

02:27:14 17 apologize for the delay in response. I will certainly

02:27:29 18 contact you again with details this week.

02:27:32 19 "Thanks."

02:27:33 20 MS. GLATFELTER: Okay. And if we could go back to

02:27:35 21 page 1 again.

02:27:35 22 BY MS. GLATFELTER:

02:27:38 23 Q. And did you respond to him again with a longer response?

02:27:44 24 A. Could you zoom in little bit?

02:27:53 25 MS. GLATFELTER: And if we can scroll down a little

LI - DIRECT (Glatfelter)

91

02:27:55 1 bit, Jackie. Thank you.

02:27:57 2 THE WITNESS: Yes.

02:27:58 3 BY MS. GLATFELTER:

02:27:58 4 Q. All right. And what did you tell Mr. Qu Hui in that  
02:28:05 5 response?

02:28:05 6 A. Verbatim or read it or --

02:28:07 7 Q. You can go ahead and read this one and then we will move  
02:28:10 8 on.

02:28:11 9 A. Okay. So what I wrote was, "Mr. Qu, Greetings.

02:28:15 10 "I have some time to talk with you today. My main  
02:28:19 11 responsibility at Boeing is international IT project  
02:28:24 12 establishment and management.

02:28:26 13 "Network security is often a key issue but not my  
02:28:31 14 expertise. Currently, the U.S. and China hold different  
02:28:37 15 views on the issues of network security.

02:28:41 16 "With the above considerations, I am pleased to have  
02:28:46 17 this opportunity to communicate and exchange with my Chinese  
02:28:50 18 counterparts. However, I do not think I am the best fit in  
02:28:56 19 the field of network security.

02:28:59 20 "If you agree with my thoughts, maybe we can further  
02:29:04 21 our discussions.

02:29:06 22 "Thanks."

02:29:08 23 Q. How did Mr. -- or did Mr. Qu Hui respond to this  
02:29:17 24 particular email where you told him that you could not present  
02:29:21 25 to him or exchange ideas about network security?

02:29:36 1 MS. GLATFELTER: Ms. Prim, if we could zoom out  
02:29:42 2 there. Thank you.

02:29:43 3 THE WITNESS: Okay. So I am reading off his direct  
02:29:47 4 reply to my email here, what he said.

02:29:53 5 "Teacher" -- my last name.

02:29:56 6 "Greetings. I am glad to receive your reply.

02:29:58 7 "Good IT establishment and management are the foundation  
02:30:04 8 for the network protection. In fact, Chinese enterprise do  
02:30:10 9 not pay enough attention on network development. Many large  
02:30:14 10 enterprise network protection systems are useless.

02:30:18 11 "Boeing being an international defense enterprise, it  
02:30:24 12 must have sufficient experience for us to reference. I think  
02:30:30 13 there is a lot of room for exchange even in your field of  
02:30:33 14 expertise.

02:30:35 15 "Do you have plans to return to China in the near future?  
02:30:42 16 We can discuss further at your convenience.

02:30:47 17 "Jastquhui."

02:30:54 18 BY MS. GLATFELTER:

02:30:54 19 **Q.** Thank you. In his response email to you, it states,  
02:30:57 20 "Boeing being international defense enterprise, it must have  
02:31:01 21 sufficient experiences for us to reference."

02:31:03 22 That phrase, "international defense enterprise," what  
02:31:07 23 does that mean to you, or what did you understand that to  
02:31:10 24 mean?

02:31:13 25 **A.** I have -- at the time when I read this email, this work

LI - DIRECT (Glatfelter)

93

02:31:40 1 really didn't register in my mind until later I realize he's

02:31:44 2 probably specifically interest in the defense side of

02:31:47 3 technology.

02:31:48 4 **Q.** Does Boeing have a commercial and a defense side to its

02:31:52 5 business?

02:31:52 6 **A.** Yes, Boeing has both commercial and defense businesses.

02:31:58 7 **Q.** And by "defense," what do you mean?

02:32:00 8 **A.** As far as I know, like military aircraft, missiles,

02:32:12 9 maybe space vehicles. That's my understanding.

02:32:19 10 **Q.** Okay. Now, at some point you told us that you returned

02:32:25 11 to China, right? And you met Mr. Qu Hui. Did you continue to

02:32:31 12 correspond with him during that period?

02:32:33 13 **A.** I believe so.

02:32:36 14 MS. GLATFELTER: Okay. If we can show the witness

02:32:39 15 Exhibit 91b, please.

02:32:43 16 THE COURT: 91?

02:32:47 17 MS. GLATFELTER: 91b.

02:32:48 18 THE COURT: B as in "boy"?

02:32:50 19 MS. GLATFELTER: Yes.

02:32:51 20 THE COURT: Very well.

02:32:54 21 MS. GLATFELTER: And if you can zoom into that,

02:32:58 22 Ms. Prim.

02:33:03 23 BY MS. GLATFELTER:

02:33:04 24 **Q.** Mr. Li, do you see the content on the screen?

02:33:06 25 **A.** Yes, I do.

LI - DIRECT (Glatfelter)

94

02:33:09 1 Q. And did you have an opportunity to review this before you  
02:33:11 2 testified?

02:33:11 3 A. I did.

02:33:12 4 Q. Okay. And does this exhibit show your WeChat  
02:33:17 5 communications with Mr. Qu Hui?

02:33:21 6 A. It is mine with him.

02:33:23 7 MS. GLATFELTER: Your Honor, I'd move to admit 91b.

02:33:26 8 THE COURT: Any objection?

02:33:27 9 MS. TAYLOR: No objection.

02:33:28 10 THE COURT: It's admitted.

02:33:31 11 (Government Exhibit 91b was received in evidence.)

02:33:31 12 BY MS. GLATFELTER:

02:33:31 13 Q. And are these messages in Chinese?

02:33:34 14 A. Yes.

02:33:35 15 Q. Okay. So I'd like you to look at Exhibit 92.

02:33:39 16 MS. GLATFELTER: If we could show the witness  
02:33:42 17 Exhibit 92?

02:33:43 18 THE COURT: Yes.

02:33:46 19 BY MS. GLATFELTER:

02:33:46 20 Q. Mr. Li, did you have an opportunity to review Exhibit 92  
02:33:49 21 before your testimony?

02:33:50 22 A. I have.

02:33:51 23 Q. What does Exhibit 92 contain?

02:33:56 24 A. It looks like an email exchanges between me and him.

02:34:03 25 Q. Okay. And does it also include the WeChat correspondence

LI - DIRECT (Glatfelter)

95

02:34:06 1 that you had with Mr. Qu Hui?

02:34:10 2 A. Not on the screen. They are all emails.

02:34:14 3 Q. I am sorry. On subsequent pages of the exhibit that you  
02:34:16 4 reviewed, does it show your WeChat communications also?

02:34:22 5 A. Could you show the subsequent screen pages?

02:34:24 6 Q. Sure.

02:34:25 7 MS. GLATFELTER: If we can show the witness page 4,  
02:34:29 8 for example.

02:34:32 9 THE WITNESS: Yes.

02:34:33 10 BY MS. GLATFELTER:

02:34:34 11 Q. Okay. And so is Exhibit 92, what you're looking at, a  
02:34:40 12 compilation of both the emails and the WeChat messages?

02:34:42 13 A. Yes.

02:34:44 14 MS. GLATFELTER: Your Honor, at this time I'd move  
02:34:46 15 to admit Government's Exhibit 92.

02:34:49 16 MS. TAYLOR: No objection.

02:34:50 17 THE COURT: It's admitted.

02:34:54 18 (Government Exhibit 92 was received in evidence.)

02:34:54 19 MS. GLATFELTER: And I'd ask to publish this to the  
02:34:56 20 jury.

02:34:57 21 THE COURT: Yes.

02:35:02 22 MS. GLATFELTER: Just making sure the jurors can  
02:35:04 23 see.

02:35:04 24 BY MS. GLATFELTER:

02:35:05 25 Q. Does Exhibit 92 have columns at the top, or descriptions

LI - DIRECT (Glatfelter)

96

02:35:10 1 of the columns at the top of the page?

02:35:13 2 A. Yes.

02:35:14 3 Q. And what are those descriptions?

02:35:16 4 A. "From," "To," "Date," and "Content."

02:35:19 5 Q. At this time I'd like to go ahead and read through this  
02:35:23 6 exhibit with you.

02:35:26 7 Are the green messages, messages that you sent to Mr. Qu  
02:35:35 8 Hui?

02:35:35 9 A. Correct.

02:35:35 10 Q. Let's have you read the green messages, and I'll read the  
02:35:40 11 blue messages.

02:35:42 12 And for the messages, we will state with the date. So we  
02:35:45 13 will read the date and the type of communication. And then we  
02:35:49 14 will move down the page.

02:35:51 15 I believe we read the messages on the first page, so if  
02:35:55 16 we can go to the second page.

02:36:01 17 October 9, 2015 email. "Teacher, greetings. I am glad  
02:36:09 18 to receive your reply.

02:36:09 19 "Good IT establishment and management are the foundation  
02:36:12 20 for the network protection. In fact, Chinese enterprises  
02:36:16 21 don't pay enough attention on network development. Many large  
02:36:22 22 enterprise network protection systems are useless.

02:36:26 23 "Boeing being an international defense enterprise, it  
02:36:29 24 must have sufficient experiences for us to reference.

02:36:31 25 "I think there is a lot of room for exchange even in your



LI - DIRECT (Glatfelter)

97

02:36:34 1 field of expertise. Do you have plans to return to China in  
02:36:37 2 the near future? We can discuss further at your convenience."  
02:36:43 3 **A.** Yeah, next is my response, was dated January 20, 2016.  
02:36:52 4 I said, "Mr. Qu Hui.  
02:36:55 5 "I might return to Nanjing for two weeks around April.  
02:37:01 6 I will be willing to share some IT and project management  
02:37:04 7 experience with Chinese counterparts. If you are  
02:37:08 8 interested, we can keep in touch?  
02:37:13 9 "Thanks."  
02:37:14 10 **Q.** Your response, January 22, 2016, email. "Teacher,  
02:37:20 11 welcome back.  
02:37:21 12 "I can make arrangements for the exchange. It is almost  
02:37:24 13 spring festival now, and the universities are on break. I  
02:37:29 14 will complete related work after the holiday. Keep in touch.  
02:37:33 15 Wishing you and the family a happy New Year."  
02:37:38 16 February 29, 2016 email. "Teacher, greetings.  
02:37:43 17 "Apologize for the delay in reply. Considering you have  
02:37:47 18 been working as an IT in a large company all these years, I  
02:37:52 19 recently contacted Jiangsu" -- I am not sure about the next  
02:37:59 20 word -- "information security technology company, Jiangsu  
02:38:04 21 Cimer Information Security Technology Company, and they are  
02:38:09 22 very interested in your resume and hope to hear you share your  
02:38:12 23 work experience. Who do you think?"  
02:38:17 24 **A.** My response was dated March 2, 2016?  
02:38:23 25 **Q.** Yes.

LI - DIRECT (Glatfelter)

98

02:38:23 1 A. It reads, "Thank you very much for your kindness,  
02:38:25 2 Mr. Qu Hui.

02:38:27 3 "I am not trying to be difficult, but my current field  
02:38:30 4 of expertise is not in information security. I was  
02:38:38 5 involved" -- I think there is typo there -- it should be "in  
02:38:43 6 that ten years ago. But information security technology is  
02:38:48 7 advancing all the time. I now focus on management  
02:38:52 8 perspective.

02:38:53 9 "If there are enterprise" -- plural -- "enterprises  
02:39:01 10 interested in portfolio, program, project management, and  
02:39:06 11 willing to conduct exchanges, I am very willing to share  
02:39:11 12 thoughts with counterparts.

02:39:13 13 "Thanks."

02:39:15 14 Q. March 2, 2016, email. "Teacher.

02:39:20 15 "Because this is an initial contact, the main purpose is  
02:39:23 16 for both parties to understand each other. Since you think it  
02:39:27 17 is not a good fit, we can hold on to the exchange.

02:39:30 18 "You can tell me your itinerary to China, and I can  
02:39:34 19 arrange time for us to meet. We can communicate and see if  
02:39:38 20 there is room for collaboration.

02:39:39 21 "If you send me the airline confirmation, I can help you  
02:39:43 22 to resolve the issue.

02:39:45 23 "Qu Hui."

02:39:48 24 Let me stop right there and ask you a question about: Do  
02:39:52 25 you understand -- or did you understand when he said "resolve

02:39:55 1 the issue" what he was referring to?

02:39:57 2 **A.** No, I wasn't very clear what he meant by "resolve the

02:40:06 3 issue."

02:40:07 4 **Q.** Okay. If you can continue, sir.

02:40:08 5 **A.** Okay. My follow-up with him on March 5, 2016. What I

02:40:15 6 said, it was, "If it is convenient for you, maybe we can

02:40:20 7 meet on May 4th or May 5th."

02:40:25 8 **Q.** March 22, 2016, email. "Sure, no problem. My phone

02:40:31 9 number is 13913882316. Call me after you arrive in China. We

02:40:42 10 can set a time and location.

02:40:45 11 "Sent from my iPhone."

02:40:49 12 **A.** I acknowledged on March 23rd -- March 23, 2016, with

02:40:56 13 "Thanks."

02:40:58 14 THE COURT: Have we reached a breaking point?

02:41:03 15 MS. GLATFELTER: Sure, Your Honor.

02:41:03 16 THE COURT: We have been at it for a while. We're

02:41:05 17 going to take a 20-minute break for the jury and all of us.

02:41:09 18 During the break, jurors, please do not discuss the case

02:41:12 19 among yourselves or with anyone else. No independent

02:41:16 20 research. Continue to keep an open mind.

02:41:18 21 Out of respect for you, we will rise as you leave.

02:41:22 22 THE COURTROOM DEPUTY: All rise for the jury.

02:41:23 23 (Jury out at 2:41 p.m.)

02:41:52 24 THE COURT: The jury's left. 20-minute break until

02:42:00 25 3 o'clock. We're in recess.

LI - DIRECT (Glatfelter)

100

02:42:05 1 THE COURTROOM DEPUTY: This court is in recess until  
02:42:07 2 3 o'clock.  
02:42:08 3 (Recess from 2:42 p.m. until 3:00 p.m.)  
03:00:19 4 THE COURT: Please be seated. Thank you.  
03:00:19 5 The witness may retake the witness stand.  
03:00:21 6 THE WITNESS: Thank you.  
03:00:22 7 THE COURT: We're ready for the jury from the  
03:00:24 8 government's perspective?  
03:00:26 9 MS. GLATFELTER: Yes, Your Honor. Thank you.  
03:00:27 10 THE COURT: Defense as well?  
03:00:29 11 MS. TAYLOR: Yes, Your Honor.  
03:00:31 12 THE COURT: Very well. Let's call for the jury.  
03:01:46 13 THE COURTROOM DEPUTY: All rise for the jury.  
03:01:50 14 (Jury in at 3:01 p.m.)  
03:02:22 15 THE COURT: You may all be seated. Thank you. 15  
03:02:26 16 members of the jury have rejoined us.  
03:02:29 17 Are we ready to proceed from the government's  
03:02:33 18 perspective?  
03:02:34 19 MS. GLATFELTER: Yes, we are, Your Honor.  
03:02:36 20 THE COURT: The defense as well?  
03:02:38 21 MS. TAYLOR: Yes, Your Honor. Thank you.  
03:02:39 22 THE COURT: Very well. The witness remains under  
03:02:41 23 oath.  
03:02:45 24 Ms. Glatfelter, you may continue.  
03:02:48 25 MS. GLATFELTER: Thank you, Your Honor.

LI - DIRECT (Glatfelter)

101

03:02:49 1 BY MS. GLATFELTER:

03:02:49 2 **Q.** Mr. Li, before we broke we were reading Government's  
03:02:52 3 Exhibit 92, and I believe we had reached the bottom, which is  
03:02:57 4 my portion, I'll say.

03:03:00 5 May 5, 2016, WeChat. "Hello, Teacher."

03:03:04 6 MS. GLATFELTER: And if we could flip to the next  
03:03:07 7 page.

03:03:12 8 THE WITNESS: The first line appears it's what I  
03:03:17 9 sent after meeting. So I said, "It was nice seeing you,  
03:03:26 10 Minister" -- I would say -- "Cai and a Little Yu. Keep in  
03:03:32 11 touch."

03:03:37 12 I have to explain a little -- Minister Cai is his job  
03:03:41 13 title.

03:03:42 14 Little Yu, it means, in Chinese custom, when you call  
03:03:46 15 someone younger, you put "Little" in front of the last name.

03:03:46 16 BY MS. GLATFELTER:

03:03:51 17 **Q.** Okay. And you said this was after your meeting. Are you  
03:03:53 18 referring to your meeting with Mr. Xu -- I'm sorry -- Mr. Qu  
03:03:57 19 Hui?

03:03:57 20 **A.** Yes, in hotel lobby.

03:03:59 21 **Q.** Okay. And who are the people that you are referencing in  
03:04:03 22 this message?

03:04:04 23 **A.** This reference two other person came with Mr. Qu, set  
03:04:16 24 down with me that day.

03:04:17 25 **Q.** And so the two individuals, Minister Cai and Little Yu,

LI - DIRECT (Glatfelter)

102

03:04:26 1 are the two other people that were with him?

03:04:26 2 A. Correct.

03:04:27 3 Q. Okay. You had an opportunity to observe them during the  
03:04:32 4 meeting. Did they seem to be equals in terms of their  
03:04:36 5 superiority, or can you explain that to the jury?

03:04:40 6 A. Yes. To me, Mr. Qu is the superior of three, because  
03:04:51 7 by Chinese custom, the person senior always speaks. The  
03:04:58 8 other people listen.

03:05:01 9 Q. And did you know the names that you used in this message  
03:05:05 10 because they introduced themselves?

03:05:08 11 A. I did not know them beforehand, but I believe that's  
03:05:16 12 introducing to me by Mr. Qu.

03:05:18 13 Q. During the meeting?

03:05:19 14 A. During the meeting, yes.

03:05:20 15 Q. I see. The next message, May 5, 2016, WeChat. "Thanks,  
03:05:28 16 Teacher."

03:05:29 17 The next message, same date. "Teacher, how much is the  
03:05:32 18 plane ticket for your trip back this time? We would like to  
03:05:35 19 keep inviting you to come back, so we can help you pay for the  
03:05:39 20 round-trip tickets."

03:05:43 21 A. Yeah, to that I replied, "Thanks a lot. Not this  
03:05:48 22 time."

03:05:51 23 By that, means I do not need to be reimbursed.

03:05:55 24 Q. Okay. I am going to ask you some additional questions  
03:05:57 25 about that.

03:05:59 1 A few messages down, May 5, 2016, WeChat. "No problem.

03:06:06 2 You are welcome.

03:06:07 3 The state has specific funds for experts and talents  
03:06:11 4 introduction, so the tickets can be reimbursed."

03:06:15 5 "Just send me the E-tickets if it's not too much  
03:06:21 6 trouble."

03:06:21 7 May 9, 2016, WeChat. "Teacher, have you arrived in  
03:06:24 8 Nanjing?"

03:06:27 9 **A.** Yes. The following response happened -- occurred when  
03:06:33 10 I was in China. So on May 9, 2016, I was traveling from  
03:06:40 11 Shanghai, the international airport, airport land in  
03:06:46 12 Shanghai. Have to take high-speed train to Nanjing.

03:06:49 13 So this message, "Not yet. Just got on the high-speed  
03:06:52 14 train," it was when I was on the train.

03:06:56 15 **Q.** So the next page, May 9, 2016. "Teacher, would you like  
03:07:01 16 to meet tonight or tomorrow morning?"

03:07:05 17 "Is 8:30 tomorrow morning convenient for you?"

03:07:09 18 So let me stop you there and ask you, these  
03:07:12 19 messages occurred after -- did these messages occur after you  
03:07:15 20 met Qu Hui in the hotel?

03:07:19 21 **A.** These appear to be before, before the meeting occurred.  
03:07:27 22 When I was in Nanjing, I did arrive Nanjing, after I got  
03:07:31 23 Nanjing, and then he is trying to arrange a time for our  
03:07:35 24 meeting.

03:07:38 25 **Q.** Okay. By the date, though, these are May 9, 2016. That

LI - DIRECT (Glatfelter)

104

03:07:41 1 would have been after the meeting?

03:07:49 2 I tell you what, sir. I'm going to ask you to -- let's  
03:07:52 3 continue reading a little bit further down the page, and maybe  
03:07:55 4 that will clarify or refresh your memory.

03:07:58 5 A. Okay.

03:07:58 6 Q. The last message was May 9, 2016, WeChat. "Is 8:30  
03:08:06 7 tomorrow morning convenient for you?"

03:08:10 8 A. Can I go back one more page?

03:08:20 9 Q. Surely.

03:08:32 10 A. Okay. Move to the next page, please.

03:08:36 11 So you are correct, this happened after the meeting. I  
03:08:42 12 think he wants to meet again.

03:08:44 13 Q. After your first meeting?

03:08:45 14 A. Yes, yeah.

03:08:47 15 Q. And if you can go ahead and read your responses.

03:08:50 16 A. My response was, "Sorry, I'm too busy to meet."

03:08:56 17 "I will definitely contact you again," on the same day,  
03:09:00 18 May 9, 2016.

03:09:01 19 Q. Let's pause there for a moment.

03:09:04 20 Did you want to meet with Mr. Qu Hui again?

03:09:06 21 A. Not really. This is just the custom that you don't  
03:09:10 22 want to decline, all right. It's just a polite way to say I  
03:09:17 23 am really not interested in spending more time with you.

03:09:19 24 Q. And why weren't you interested in spending more time with  
03:09:24 25 him?



LI - DIRECT (Glatfelter)

105

03:09:25 1 A. I only get to see my dad for two weeks in a year, so I  
03:09:29 2 really wanted to spend time with my family members, not on  
03:09:32 3 business.

03:09:33 4 Q. Okay. Anything else?

03:09:34 5 A. And also I had a feeling that he wasn't really  
03:09:40 6 interested in project management exchange sharing. What he  
03:09:46 7 is looking for is something else that I could not provide.

03:09:52 8 Q. Did you -- were you able to tell what that something else  
03:09:55 9 was based on your meeting with him in the hotel?

03:09:58 10 A. My understanding was that he wanted to know the  
03:10:02 11 Internet -- or Internet or information security.

03:10:05 12 Q. And this is during the time that you were working for  
03:10:09 13 Boeing?

03:10:09 14 A. Correct.

03:10:11 15 Q. Let's continue with these messages.

03:10:13 16 May 9, 2016, WeChat. "No problem. Have a safe trip."

03:10:20 17 May 12, 2016, WeChat. "Teacher, have you returned to the  
03:10:25 18 U.S.? Please send me the tickets at your convenience. Thank  
03:10:29 19 you."

03:10:31 20 May 14, 2016, WeChat. "Teacher, have you returned to the  
03:10:36 21 U.S.? Please send me the tickets at your convenience. Thank  
03:10:40 22 you."

03:10:42 23 May 15, 2016, WeChat. "Teacher, I've already got the  
03:10:49 24 fund from the finance department for the plane tickets of your  
03:10:53 25 last trip, and it's not convenient to return it. Can you

LI - DIRECT (Glatfelter)

106

03:10:57 1 please send me the E-tickets as soon as possible? I will find  
03:11:03 2 some time to send it to your father and ask him to sign a  
03:11:05 3 receipt. This will be violating the financial regulations if  
03:11:08 4 it takes too long and there would be a bit -- and there would  
03:11:13 5 be a bit of troublesome. Thank you for your understanding."

03:11:21 6 May 16, 2016. "Teacher, greetings.

03:11:26 7 "I have already applied funding for the last airfare from  
03:11:30 8 the finance office. It is inconvenient for me to return it.  
03:11:33 9 Please send me the electronic flight ticket confirmation as  
03:11:38 10 soon as possible so I can send money to your father. I would  
03:11:42 11 only need him to issue me a receipt. It is an accounting  
03:11:46 12 violation if we prolong this. It can be troublesome. Hope  
03:11:50 13 you can understand it. Thanks.

03:11:52 14 "Also, I have sent you a few WeChat messages previously  
03:11:57 15 but I did not receive any response. Is there any problems?  
03:12:01 16 Best wishes. Qu Hui."

03:12:06 17 **A.** To which I replied in WeChat -- this is actually in  
03:12:11 18 email, on 17th of May, 2016. I said, "Qu Hui, greetings.

03:12:19 19 "After returning home last Thursday, I was overwhelmed  
03:12:22 20 by many things and I got behind on my work. In addition,  
03:12:27 21 jet lag played a role. Sorry for the delay in response.

03:12:31 22 "I was going to write a detailed package and send it to  
03:12:36 23 you along with electronic flight ticket confirmation. But  
03:12:41 24 it looks like you cannot wait much longer. I am sending the  
03:12:44 25 electronic flight ticket confirmation in this email. This

03:12:50 1 way, I can take my time creating the material.

03:12:56 2 "I do not use WeChat much. It distracts me. Thank you  
03:13:02 3 very much."

03:13:02 4 Q. And, Mr. Li, there were several messages leading up to  
03:13:06 5 this one that you didn't respond to. How come you responded  
03:13:10 6 to this message that he sent, this last message?

03:13:14 7 A. I don't remember the reason, but I feel like after he  
03:13:25 8 sent me so many messages, I feel I need a proper wrap-up  
03:13:30 9 maybe. That's why I was thinking about that time.

03:13:33 10 Q. What, if any, concerns did you have about him referencing  
03:13:37 11 your father in the email?

03:13:44 12 MS. TAYLOR: Objection, Your Honor. Leading.

03:13:47 13 THE COURT: Overruled. Don't lead the witness.

03:13:51 14 THE WITNESS: Could you repeat the question again?

03:13:53 15 BY MS. GLATFELTER:

03:13:53 16 Q. Sure. I said what, if any, concerns did you have  
03:13:58 17 regarding his reference to your father in his email?

03:14:05 18 A. I did not give it much thought.

03:14:08 19 Q. Okay.

03:14:08 20 A. At that time.

03:14:10 21 Q. The next message response is -- or the next message is  
03:14:15 22 June 29, 2016. "Teacher, greetings.

03:14:19 23 "A week ago -- a weeks ago I contacted your father as I  
03:14:23 24 was ready to send over the reimbursement for the flight  
03:14:26 25 ticket.

LI - DIRECT (Glatfelter)

108

03:14:26 1 "However, he said he did not hear you talking about this  
03:14:30 2 matter. For this, I sent you a few messages in WeChat, but  
03:14:34 3 you did not respond.

03:14:36 4 "At your convenience, please let your father know about  
03:14:39 5 this so I can resolve the issue. Nevertheless, it is  
03:14:44 6 inconvenient for me to hang on to it. Also, if you are done  
03:14:48 7 organizing the material, please send them to me, thanks.

03:14:51 8 "From the last conversation with your father, he might  
03:14:55 9 have overcomplicated things. What is between us is open  
03:14:59 10 technical exchange. Please do not overanalyze it. Certainly  
03:15:05 11 our collaboration will take into consideration of our thoughts  
03:15:08 12 and feelings.

03:15:09 13 "Qu Hui."

03:15:16 14 And, Mr. Li, did you respond to that message?

03:15:20 15 A. No, I did not.

03:15:22 16 Q. Okay. And on this last page, do we see additional  
03:15:25 17 messages from Mr. Qu Hui that you did not respond to?

03:15:30 18 A. No, I did not.

03:15:32 19 Q. You didn't respond to him after that last email?

03:15:35 20 A. No.

03:15:35 21 Q. How come?

03:15:36 22 A. I don't feel I need to continue this conversation. I  
03:15:43 23 made myself pretty clear. And there is no point to continue  
03:15:47 24 this, spend time on this.

03:15:51 25 Q. And during this time, 2015 to 2016, you're working at

03:16:00 1 Boeing aviation?

03:16:01 2 A. Correct.

03:16:02 3 Q. Were you working there in any capacity as a designer or

03:16:08 4 an engineer?

03:16:09 5 A. No.

03:16:09 6 Q. What area were you working in?

03:16:11 7 A. I was working in IT field. Two areas I worked on, like

03:16:18 8 I said. The first job was on data backup and archive; the

03:16:24 9 second job is IT project management.

03:16:28 10 MS. GLATFELTER: Okay. One moment, Your Honor.

03:16:30 11 THE COURT: Very well.

03:16:32 12 MS. GLATFELTER: I have no further questions for

03:16:33 13 this witness. Thank you.

03:16:35 14 THE COURT: Very well. The attorney for the

03:16:40 15 defendant has an opportunity to ask questions of the witness.

03:16:45 16 Cross-examination, counsel?

03:16:48 17 MS. TAYLOR: Your Honor, may I take a moment with my

03:16:50 18 colleagues?

03:16:51 19 THE COURT: Yes.

03:16:52 20 MS. TAYLOR: Thank you.

03:16:52 21 (Pause.)

03:17:51 22 MS. TAYLOR: Your Honor, thank you for the moment.

03:17:53 23 No cross-examination on behalf of the defense.

03:17:55 24 THE COURT: Very well. Sir, your testimony is

03:17:59 25 complete. You are free to go. I want you to be careful out

LI - DIRECT (Glatfelter)

110

03:18:03 1 there in Washington because they have horrible weather.

03:18:07 2 THE WITNESS: Yes. It was pouring rain yesterday.

03:18:11 3 Glad it is over. Thank you so much, Your Honor.

03:18:14 4 THE COURT: Very well.

03:18:20 5 Where do we stand from the government's perspective?

03:18:25 6 MR. MCKENZIE: Your Honor, the government is ready  
03:18:27 7 to call our next witness, Special Agent Adam James.

03:18:31 8 THE COURT: Very well. If we could call for the  
03:18:33 9 agent, special agent.

03:18:37 10 MS. TAYLOR: Your Honor, counsel for --

03:18:38 11 THE COURT: Yes?

03:18:39 12 MS. TAYLOR: Counsel for defense is going to change  
03:18:43 13 places at the tables.

03:18:43 14 THE COURT: Change what?

03:18:43 15 MS. TAYLOR: Change places at the tables if that's  
03:18:44 16 okay?

03:18:45 17 THE COURT: Yes.

03:18:45 18 MS. TAYLOR: Thank you.

03:19:02 19 THE COURT: If the witness would be willing to  
03:19:03 20 approach, we're going to put you in the witness stand over  
03:19:06 21 here.

03:19:10 22 If you'd be willing to pause for the oath to tell the  
03:19:13 23 truth. If you'd raise your right hand. Do you solemnly swear  
03:19:16 24 or affirm that your testimony today will be the truth, subject  
03:19:21 25 to penalty of perjury?

JAMES - DIRECT (McKenzie)

111

03:19:23 1 THE WITNESS: I do.

03:19:24 2 THE COURT: Very well. Once you get seated, get  
03:19:27 3 close to the microphone.

03:19:30 4 The lawyer for the government may begin with questions.

03:19:30 5 **ADAM ROBERT JAMES, PLAINTIFF WITNESS, SWORN**

03:19:33 6 **DIRECT EXAMINATION**

03:19:33 7 BY MR. McKENZIE:

03:19:34 8 **Q.** Good afternoon. My name is Matthew McKenzie.

03:19:38 9 Will you please state your full name and spell your last  
03:19:40 10 name for the record?

03:19:41 11 **A.** My name is Adam Robert James, J-A-M-E-S.

03:19:49 12 **Q.** By whom are you employed?

03:19:51 13 **A.** The FBI.

03:19:53 14 **Q.** To which field office are you assigned?

03:19:58 15 **A.** I'm assigned to the San Diego field office.

03:20:02 16 **Q.** What is your current position within the FBI?

03:20:06 17 **A.** I am a special agent.

03:20:09 18 **Q.** How long have you been a special agent?

03:20:11 19 **A.** I became a special agent on July 5th of 2010.

03:20:17 20 **Q.** Do you have a particular focus?

03:20:21 21 **A.** Yes. I'm focused on cyber crime investigations.

03:20:24 22 **Q.** What types of activities are included in cyber crime?

03:20:30 23 **A.** There's various types of cyber crime that the FBI  
03:20:33 24 investigates. It could be ransomware. It could be business  
03:20:39 25 email compromises. But I mainly focus on computer intrusion

JAMES - DIRECT (McKenzie)

112

03:20:43 1 activity.

03:20:45 2 **Q.** Has the FBI provided you with any training regarding  
03:20:50 3 computer intrusions and cyber investigations?

03:20:53 4 **A.** Yes, it has.

03:20:54 5 **Q.** Could you provide the jury with an overview of your  
03:20:59 6 training that was provided by the FBI?

03:21:01 7 **A.** Yes. So when you get hired by the FBI, they send you  
03:21:05 8 to the FBI Academy for about five months for general  
03:21:08 9 training. That covers a little bit of cyber crime training,  
03:21:12 10 but very little.

03:21:13 11 When you get assigned to a cyber squad once you get out  
03:21:17 12 of the academy, they send you to additional training. So  
03:21:20 13 the first training I took was a two-week general cyber  
03:21:25 14 investigation course where they kind of tell you here's all  
03:21:29 15 the elements of the FBI that does cyber crime  
03:21:33 16 investigations, and then they give you kind of like a brief  
03:21:37 17 week-long course in cyber investigations.

03:21:40 18 And then since then I have taken over 400 hours of  
03:21:43 19 training both online and in person. That has included  
03:21:47 20 everything from interview and interrogation techniques;  
03:21:51 21 hacker tactics, techniques, and procedures; reverse  
03:21:55 22 engineering malware; and computer forensics; and intrusion  
03:21:59 23 investigations.

03:21:59 24 **Q.** We'll come back and define some of those terms in a  
03:22:03 25 moment. But prior to joining the FBI, where did you work?



JAMES - DIRECT (McKenzie)

113

03:22:10 1 A. Immediately prior to joining the FBI, I worked for a  
03:22:15 2 computer security consulting company in Omaha, Nebraska.

03:22:17 3 Q. And what were some of your duties and responsibilities?

03:22:19 4 A. My primary duty immediately before joining the FBI was  
03:22:23 5 computer forensics and incident response. Prior to that I  
03:22:27 6 did some third-party risk assessments and policy writing for  
03:22:33 7 various companies.

03:22:35 8 Q. Did you ever -- in that capacity as a consultant, did you  
03:22:41 9 ever contract with the U.S. government?

03:22:42 10 A. I took a -- about a nine-month leave of absence from my  
03:22:49 11 job with the consulting company, and I did media forensics  
03:22:53 12 for a U.S. military in Iraq.

03:22:58 13 Q. Will you just explain to the jury in basic terms what you  
03:23:02 14 did over in Iraq?

03:23:05 15 A. Yeah. So basically what my job was, is when the  
03:23:08 16 military would go out and detain suspected terrorists or  
03:23:12 17 insurgents, they would take the person and all of their  
03:23:15 18 papers, electronic devices, computers, all that type of  
03:23:19 19 stuff. They would bring them back to be reviewed and  
03:23:22 20 interrogated. So while the military was interrogating the  
03:23:26 21 suspect, my job would be to go through all of their  
03:23:29 22 electronic media and pull off whatever information was  
03:23:33 23 available.

03:23:36 24 Q. What was your first job in information technology --

03:23:40 25 A. My first --

JAMES - DIRECT (McKenzie)

114

03:23:41 1 Q. -- after you graduated?

03:23:42 2 A. My first job in information technology, I was a  
03:23:46 3 business analyst at Mutual of Omaha. And I worked up  
03:23:50 4 through several jobs at Mutual of Omaha, from a business  
03:23:54 5 analyst to a computer programmer, and then ultimately I was  
03:23:57 6 a security analyst at Mutual of Omaha.

03:24:01 7 Q. Did you earn a bachelor's degree?

03:24:06 8 A. I did.

03:24:07 9 Q. From which institution did you earn that degree?

03:24:10 10 A. The University of Nebraska at Omaha.

03:24:12 11 Q. When did you earn the degree?

03:24:13 12 A. In 2003.

03:24:14 13 Q. What was the subject?

03:24:15 14 A. Management information systems.

03:24:18 15 Q. What is information systems?

03:24:21 16 A. Information systems is a, I guess a generic term for  
03:24:25 17 computers.

03:24:26 18 Q. After earning your bachelor's degree, did you go on to  
03:24:30 19 earn a master's degree?

03:24:31 20 A. I did.

03:24:32 21 Q. Where did you earn this degree?

03:24:34 22 A. Also from the University of Nebraska at Omaha.

03:24:37 23 Q. And what was the subject of your degree?

03:24:39 24 A. Management information systems.

03:24:44 25 Q. And when did you earn it?

JAMES - DIRECT (McKenzie)

115

03:24:45 1 A. In 2005.

03:24:48 2 Q. In addition to your education and work experience, have  
03:24:55 3 you had the occasion to earn professional certifications?

03:25:00 4 A. I have.

03:25:00 5 Q. Could you explain to the jury some of the certifications  
03:25:03 6 that you've earned and held?

03:25:05 7 A. Yes. So probably the biggest certification I've held  
03:25:09 8 was I held a CISP, which is a very broad industry standard  
03:25:15 9 certification for information security. And I've also held  
03:25:19 10 multiple more specific certifications, several related to  
03:25:24 11 computer forensics, one related to reverse engineering  
03:25:29 12 malware, one related to computer networking devices, and,  
03:25:34 13 you know, several other more generic ones.

03:25:39 14 Q. Through your education, your work experience with the FBI  
03:25:44 15 and also prior to the FBI, have you become familiar with the  
03:25:49 16 term "digital media" as it pertains to cyber investigations?

03:25:55 17 A. Yes, I am.

03:25:56 18 Q. Will you please explain to the jury what "digital media"  
03:25:59 19 means and give some common examples?

03:26:01 20 A. Okay. So digital media is going to be anything that  
03:26:05 21 can store data in a binary format or in a data format used  
03:26:10 22 by computers. And that could include a computer, your cell  
03:26:14 23 phone, the MMC card or the multimedia card you put into your  
03:26:19 24 camera, a CD. It could be a, you know, electronic music  
03:26:23 25 device. All of those would be considered digital media.

JAMES - DIRECT (McKenzie)

116

03:26:27 1 Q. Are you familiar with the term "forensic examination" as  
03:26:31 2 it pertains to digital media?

03:26:33 3 A. I am.

03:26:33 4 Q. Will you please provide a basic definition of what this  
03:26:38 5 means, "forensic examination"?

03:26:40 6 A. Yes. So for -- a forensic examination of digital media  
03:26:44 7 is analyzing a piece of digital media -- so it could be a  
03:26:49 8 computer, cell phone, anything -- in a manner which can be  
03:26:52 9 replicated and verified by another person.

03:26:57 10 Q. Including your work in private industry, including your  
03:27:02 11 time in Iraq and your time with the FBI, approximately how  
03:27:09 12 many forensic examinations have you conducted?

03:27:12 13 A. I've performed over 100 examinations of digital media.

03:27:18 14 Q. And approximately how many hours of training have you  
03:27:20 15 received in this field?

03:27:22 16 A. In the field specific of digital media examinations  
03:27:26 17 or --

03:27:27 18 Q. Yeah.

03:27:29 19 A. I would say over a hundred hours of training.

03:27:33 20 Q. Will you please explain to the jury the basic steps in  
03:27:38 21 conducting a forensic examination of digital media?

03:27:41 22 A. Okay. So the first basic step that's going to be  
03:27:46 23 conducted when you are analyzing digital media is you are  
03:27:49 24 going to make a copy of the original media. We call that a  
03:27:52 25 forensic image. And the reason in which you do that is,

JAMES - DIRECT (McKenzie)

117

03:27:57 1 again, as I stated, computer forensics is conducting an  
03:28:00 2 analysis in a way that's repeatable and able to be verified.

03:28:05 3 So when I take a forensic copy, I'm going to try to  
03:28:08 4 work off of something that's not the original media in  
03:28:11 5 case -- so that we limit or minimize the changes that occur  
03:28:16 6 to the original evidence. And then we run a set of  
03:28:20 7 standardized tools that will extract evidence from the  
03:28:23 8 specific media type for the investigation that is being  
03:28:26 9 conducted.

03:28:28 10 **Q.** And what types of files are you looking for during a  
03:28:31 11 forensic examination of a hard drive in a computer intrusion  
03:28:35 12 case?

03:28:36 13 **A.** So in a computer intrusion case we would generally be  
03:28:39 14 looking for two general types of files. One is malicious  
03:28:45 15 tools, so that could be malware or any additional file used  
03:28:50 16 by the computer intruders. And then we are also looking for  
03:28:54 17 files which contain information about how the malware was  
03:28:59 18 executed on the system.

03:29:02 19 **Q.** So I think to back up and define computer intrusion -- I  
03:29:06 20 should have done that earlier. What is a computer intrusion?

03:29:08 21 **A.** A computer intrusion is when somebody accesses a  
03:29:14 22 computer without authorization or exceeds their  
03:29:16 23 authorization.

03:29:17 24 **Q.** And I heard the word "malware."

03:29:24 25 **A.** Um-hmm.

03:29:24 1 Q. What is malware?

03:29:26 2 A. Malware is any code that is placed on a computer that  
03:29:29 3 does something that the user doesn't want their computer to  
03:29:32 4 do. So there's a lot of different types of malware.

03:29:36 5 Q. Are there common names that people use to refer to  
03:29:40 6 malware?

03:29:41 7 A. Yes.

03:29:42 8 Q. What are some of those common names?

03:29:44 9 A. So a common term would be a computer virus, would be  
03:29:49 10 what most people think about when they think of malware.

03:29:51 11 Q. Now, is there just one thing called malware, or are there  
03:30:00 12 many types of malware?

03:30:02 13 A. There are many types of malware.

03:30:07 14 Q. Are you familiar with the term "remote access trojan"?

03:30:12 15 A. I am.

03:30:13 16 Q. Is that also referred to as a RAT?

03:30:17 17 A. It can be.

03:30:22 18 Q. Will you please explain to the jury what a remote access  
03:30:26 19 trojan is?

03:30:27 20 A. A remote access trojan is a program on a computer that  
03:30:31 21 provides remote access to the computer to a user that the  
03:30:35 22 owner of the computer would prefer not to have access.  
03:30:39 23 There are legitimate remote access tools, which especially  
03:30:43 24 in current times with remote work you see commonly. But  
03:30:47 25 what sets a RAT, or a remote access trojan, apart is that

03:30:51 1 the user or owner of the computer does not intend it to be  
03:30:58 2 there.

03:30:58 3 **Q.** In general, how does a RAT or how does a remote access  
03:31:03 4 trojan work?

03:31:04 5 **A.** There's two general ways a remote access trojan can  
03:31:09 6 work. The first way is it can be installed on a computer  
03:31:13 7 and it can open up the computer to access remotely on an  
03:31:18 8 inbound connection from another location. So think of that  
03:31:22 9 as it opens up the door. As long as somebody can see that  
03:31:25 10 the door is open, they can walk in.

03:31:27 11 The other manner in which a remote access trojan can  
03:31:31 12 operate is it can get installed on the computer and it can  
03:31:33 13 initiate a connection outbound to some place on the Internet  
03:31:38 14 to let the remote user or the remote intruder know that it's  
03:31:44 15 there to be used.

03:31:45 16 **Q.** Is there a name for that process of the program reaching  
03:31:52 17 out to a remote user?

03:31:53 18 **A.** Yes. We generally call that a beacon.

03:32:00 19 **Q.** Now, is there only one remote access trojan or are there  
03:32:05 20 multiple versions of remote access trojan?

03:32:09 21 **A.** There are many versions of remote access trojans.

03:32:13 22 **Q.** Are you familiar with the term "Sakula"?

03:32:16 23 **A.** I am.

03:32:16 24 **Q.** What is Sakula?

03:32:19 25 **A.** Sakula is a specific type of remote access trojan.

03:32:25 1 **Q.** And just for the court reporter, it's S-A-K-U-L-A.

03:32:33 2 Will you explain to the jury how Sakula works?

03:32:38 3 **A.** Yeah. Sakula is a fairly basic remote access trojan.

03:32:42 4 So when it gets installed on a user's computer, it will

03:32:46 5 reach out to somewhere on the Internet with a beacon, and it

03:32:49 6 has a very specific beacon format. So there is a protocol

03:32:53 7 it uses to communicate with its controller on the Internet.

03:32:57 8 And what it allows the remote user to do is it can upload

03:33:01 9 files, download files, and run arbitrary commands on the

03:33:04 10 computer. It also can be told to uninstall itself.

03:33:10 11 **Q.** Does Sakula -- what, if any, remote access or control

03:33:16 12 does Sakula give somebody of a computer on which it is

03:33:21 13 installed?

03:33:22 14 **A.** So like I said before, they can run whatever commands

03:33:26 15 they want to at the command line of the system. They also

03:33:29 16 can upload and download files.

03:33:34 17 **Q.** How do you distinguish Sakula from another remote access

03:33:39 18 trojan?

03:33:40 19 **A.** We generally distinguish remote access trojans based on

03:33:48 20 two general things. One is the control that's present on

03:33:51 21 the disk; and the other thing, which is more pertinent to

03:33:54 22 this case, is the communication format that it uses when it

03:33:58 23 beacons.

03:34:00 24 **Q.** What does that mean in general terms, the communication

03:34:06 25 format it uses to beacon?



JAMES - DIRECT (McKenzie)

121

03:34:08 1 A. We call that a communication protocol. So what a  
03:34:11 2 communication protocol is, is the way two things  
03:34:14 3 communicate. In this case it's on the Internet, but it can  
03:34:16 4 be in your normal, everyday life.

03:34:18 5 So a good example of a communication protocol would be  
03:34:21 6 if you want to make a phone call to somebody else in the  
03:34:24 7 U.S., you pick up the phone, you dial the number that you  
03:34:27 8 want to call. You start to hear it ring. So that's the  
03:34:30 9 first part of the protocol. The other person hears it ring  
03:34:34 10 on their end, and they pick up the phone. When they pick up  
03:34:36 11 the phone -- in my case I say, "Hello. This is Adam." Then  
03:34:42 12 you know that you have established a communication that is  
03:34:44 13 an English phone call.

03:34:47 14 Q. Are you familiar with the term "plugX."

03:34:53 15 A. I am.

03:34:54 16 Q. What is plugX?

03:34:55 17 A. PlugX is a variant of a remote access trojan.

03:34:59 18 Q. In general terms, how does plugX work?

03:35:03 19 A. PlugX works very similar to Sakula. It gets installed  
03:35:08 20 on a computer, and it will initiate a beacon outbound to a  
03:35:12 21 predefined location on the Internet.

03:35:16 22 Q. Does plugX have a different protocol than Sakula?

03:35:20 23 A. It does.

03:35:21 24 Q. Is the ultimate affect of providing remote access  
03:35:25 25 similar, though?

JAMES - DIRECT (McKenzie)

122

03:35:25 1 A. It is similar.

03:35:27 2 Q. Just one more term I'd like to loop back to. Are you  
03:35:32 3 familiar with the phrase "executable file"?

03:35:36 4 A. I am.

03:35:37 5 Q. Could you provide a basic definition of what this term  
03:35:42 6 means and provide a couple examples of what are executable  
03:35:47 7 files?

03:35:47 8 A. An executable file is a program that can be run on a  
03:35:50 9 computer. So a good example of an executable file is if you  
03:35:55 10 go to your computer or your phone or whatever you use to  
03:35:57 11 browse the Internet and you click on the icon that opens up  
03:36:00 12 a web browser, what the computer in the background is doing  
03:36:03 13 is opening up an executable file that causes the browser to  
03:36:08 14 be displayed to you, which then allows you to be connected  
03:36:12 15 to the Internet.

03:36:12 16 Q. I'd like to direct your attention now to October of 2019.  
03:36:18 17 Did there come a time that you conducted a forensic  
03:36:20 18 examination of a hard drive?

03:36:23 19 A. Yes, I did.

03:36:24 20 Q. Who provided you with the hard drive?

03:36:27 21 A. The hard drive was provided by DGSI.

03:36:32 22 Q. What is DGSI?

03:36:34 23 A. DGSI is roughly equivalent to the domestic  
03:36:40 24 investigation and intelligence arm of the French government  
03:36:44 25 as it relates to cyber matters.

JAMES - DIRECT (McKenzie)

123

03:36:47 1 Q. Does it have a law enforcement component to it?

03:36:49 2 A. Yes, it does.

03:36:51 3 Q. And does the FBI and DCSI have a law enforcement  
03:36:55 4 relationship?

03:36:56 5 A. We do.

03:36:57 6 Q. And as a result of this relationship, did they share this  
03:37:01 7 computer with you?

03:37:02 8 A. Yes.

03:37:03 9 Q. Did you then conduct a forensic examination of the  
03:37:08 10 computer -- or of the hard drive? Excuse me.

03:37:11 11 A. Yes, I did.

03:37:12 12 Q. As part of that examination, were you able to determine  
03:37:19 13 what computer system and network the hard drive belonged to?

03:37:23 14 A. Yes.

03:37:24 15 Q. And what company, if any, did the hard drive belong to?

03:37:30 16 A. So the company was registered -- sorry. The hard drive  
03:37:34 17 was registered to Snecma.

03:37:37 18 Q. And what is Snecma?

03:37:40 19 A. Snecma is a subsidiary of Safran Group.

03:37:44 20 Q. And where is Safran located?

03:37:46 21 A. Safran is headquartered in France.

03:37:49 22 Q. And as part of your examination of the hard drive, were  
03:37:53 23 you able to identify a user profile?

03:37:57 24 A. Yes, I was.

03:37:58 25 Q. Were you able to view emails and other documents?

JAMES - DIRECT (McKenzie)

124

03:38:04 1 A. Yes, I was.

03:38:05 2 Q. Were you able to identify a particular user of that hard  
03:38:11 3 drive as a result of your analysis?

03:38:14 4 A. Yes.

03:38:14 5 Q. Was that person Frederic Hascoet?

03:38:19 6 A. It was.

03:38:20 7 Q. Will you please provide the jury with an overview of how  
03:38:26 8 you conducted the forensic examination of this hard drive?

03:38:30 9 A. Yes. So we first took a forensic image of the hard  
03:38:35 10 drive, and then I conducted analysis against the forensic  
03:38:38 11 image. The first step that I did is I created a timeline of  
03:38:43 12 activities that were on the system, and then I reviewed the  
03:38:47 13 timeline to see if there was any indication of a computer  
03:38:50 14 intrusion.

03:38:51 15 Q. As a result of your analysis, what, if any, malware did  
03:39:00 16 you find?

03:39:00 17 A. On the hard drive, I found one variant of Sakula  
03:39:07 18 malware and two variants of plugX.

03:39:11 19 Q. Were you able to determine when these malware programs  
03:39:15 20 were installed on the hard drive?

03:39:16 21 A. Yes.

03:39:17 22 Q. I'll come -- I'll come back to that.

03:39:22 23 I'd like to start with a discussion of Sakula. Was there  
03:39:29 24 just one file associated with Sakula or were there multiple  
03:39:35 25 files associated with this program?

03:39:37 1 A. For Sakula, there was two files still on disk that were  
03:39:41 2 related to Sakula.

03:39:44 3 Q. Were you able to determine what Sakula was set up to do?  
03:39:48 4 A. Yes, I was.

03:39:50 5 Q. Will you please explain that to the jury?  
03:39:53 6 A. The Sakula variant that was located on the hard drive I  
03:39:57 7 analyzed was set up to initiate beacons to two domains on  
03:40:04 8 the Internet.

03:40:04 9 Q. What is a domain?  
03:40:08 10 A. A domain is a shortened version of domain name. So a  
03:40:12 11 domain name is how normal people access locations on the  
03:40:17 12 Internet. So computers communicate via IP addresses. So  
03:40:22 13 think of an IP address of a computer as similar to your  
03:40:26 14 telephone number.

03:40:26 15 A domain name would be equivalent to setting up a  
03:40:29 16 contact in your phone to link a phone number to a name that  
03:40:33 17 you remember. So like if I want to go to www.fbi.gov,  
03:40:39 18 that's what I type in my web browser. But on the back end,  
03:40:43 19 the domain name system is doing the correlation between  
03:40:50 20 www.fbi.gov and an IP address that is assigned to that  
03:40:56 21 domain.

03:40:57 22 Q. Quickly, for the IP address, does the "IP" stand for  
03:41:02 23 Internet protocol?  
03:41:03 24 A. It does.

03:41:04 25 Q. Is it a series of numbers and periods?

JAMES - DIRECT (McKenzie)

126

03:41:08 1 A. Essentially, yes.

03:41:09 2 Q. Okay.

03:41:09 3 THE COURT: Have we reached an opportunity where we  
03:41:10 4 could break?

03:41:12 5 MR. McKENZIE: Of course, Your Honor.

03:41:13 6 THE COURT: Very well. We're going to take a  
03:41:16 7 20-minute break and going to come back at 4. And it would  
03:41:19 8 appear you are going to survive. During the break, please  
03:41:23 9 take a break. Don't discuss the case among yourselves or with  
03:41:25 10 anyone else. No independent research. Continue to keep an  
03:41:29 11 open mind.

03:41:31 12 Out of respect for you, we will rise as you leave.

03:41:34 13 THE COURTROOM DEPUTY: All rise for the jury.

03:41:36 14 (Jury out at 3:41 p.m.)

03:42:06 15 THE COURT: The jury's left the room. The door is  
03:42:19 16 closed.

03:42:20 17 We're going to recess till 4. It's almost 20 minutes.  
03:42:24 18 And then when we come back at 4, what's the likelihood that  
03:42:28 19 the government will finish direct?

03:42:30 20 MR. McKENZIE: Zero percent, Your Honor.

03:42:32 21 THE COURT: Zero percent.

03:42:34 22 MR. McKENZIE: Zero percent.

03:42:35 23 THE COURT: So he is not going home to San Diego  
03:42:40 24 tonight.

03:42:44 25 MR. McKENZIE: Not tonight, Your Honor.

03:42:46 1 THE COURT: We are in recess until 4. Hoping to  
03:42:48 2 break at 4:30.

03:42:48 3 THE COURTROOM DEPUTY: All rise. We are in recess  
03:42:50 4 until 4 p.m.

03:42:53 5 (Recess from 3:43 p.m. until 3:59 p.m.)

03:59:58 6 THE COURT: Back on the record, about to get the  
04:00:05 7 jury.

04:00:05 8 Mr. McKenzie, have the odds changed?

04:00:08 9 MR. McKENZIE: You know, I took another look at my  
04:00:11 10 outline, and I bump up to maybe five percent. I'm feeling a  
04:00:15 11 little more bullish.

04:00:16 12 THE COURT: Let the record reflect that.

04:00:19 13 Are we ready for the jury from the government's  
04:00:21 14 perspective?

04:00:22 15 MR. McKENZIE: Yes, Your Honor.

04:00:22 16 THE COURT: And the defense?

04:00:24 17 MS. TAYLOR: Yes, Your Honor.

04:00:25 18 THE COURT: Very well. Let's call for the jury.

04:01:17 19 We need to remember we have an interpreter at the end of  
04:01:20 20 a long day, so if we can all try and talk slowly, that will  
04:01:25 21 accommodate her.

04:01:32 22 THE COURTROOM DEPUTY: All rise for the jury.

04:01:34 23 (Jury in at 4:01 p.m.)

04:02:05 24 THE COURT: You may all be seated. Thank you.

04:02:10 25 15 jurors have returned from a break. We will continue

04:02:15 1 hearing testimony from this witness, who remains under oath.

04:02:19 2 The prosecutor may continue.

04:02:19 3 BY MR. McKENZIE:

04:02:24 4 Q. Before the break, we were defining what a domain name is.

04:02:33 5 And prior to that, you testified about Sakula beaconing to a

04:02:41 6 domain name.

04:02:43 7 How many domains, if any, did the Sakula malware beacon

04:02:50 8 to?

04:02:50 9 A. It was configured to beacon to two domain names.

04:02:53 10 Q. And were there particular domain names that the malware

04:02:58 11 beaconed to?

04:02:59 12 A. Yes, there were.

04:03:01 13 Q. Do you remember those domain names?

04:03:04 14 A. I do.

04:03:04 15 Q. What was the first domain it beaconed to?

04:03:10 16 A. The first domain was oa.ameteksen.com.

04:03:19 17 Q. Are you familiar with a company called Ametek Sensors?

04:03:25 18 A. I am.

04:03:26 19 Q. What is Ametek Sensors?

04:03:29 20 A. Ametek Sensors is a subsidiary of a larger company

04:03:35 21 named Ametek, which is a part supplier for Snecma.

04:03:42 22 Q. And by part supplier, is that like airline parts?

04:03:45 23 A. Yes.

04:03:46 24 Q. Does Ametek Sensors have a website?

04:03:53 25 A. Yes, they do.



JAMES - DIRECT (McKenzie)

129

04:03:54 1 Q. Have you visited that website?

04:03:56 2 A. I did at the time.

04:04:00 3 Q. Are you familiar with the term "doppelganger domain"?

04:04:09 4 A. I am.

04:04:10 5 Q. Would you please explain to the jury what a doppelganger  
04:04:14 6 domain is?

04:04:15 7 A. Doppelganger domain is a domain name that's intended to  
04:04:20 8 look similar to a legitimate company's domain but it's not  
04:04:23 9 owned by the legitimate company.

04:04:25 10 Q. And how are doppelganger domains used in computer  
04:04:32 11 intrusions and in cyber investigations?

04:04:33 12 A. There are several ways that doppelganger domains can be  
04:04:38 13 used in computer intrusion activity. One good example is if  
04:04:42 14 I wanted to click on something that has malicious -- some  
04:04:46 15 kind of malicious attachment. If I send you a domain name  
04:04:50 16 that is maybe one letter off of something you're likely to  
04:04:55 17 go to, it's going to be more likely to entice you to click  
04:04:58 18 on that link and download the malware.

04:05:01 19 Another way, which is more pertinent to this instance,  
04:05:04 20 is when a company has any kind of computer on their internal  
04:05:12 21 network trying to reach out to something on the Internet,  
04:05:15 22 they monitor those systems to make sure they are --  
04:05:20 23 generally their users are going to places they should be.  
04:05:23 24 And so if you create a doppelganger domain and put it in  
04:05:27 25 malware, when it beacons out to the Internet it looks like

JAMES - DIRECT (McKenzie)

130

04:05:30 1 more legitimate traffic.

04:05:32 2 Q. Did you investigate or look into oa.ameteksen.com?

04:05:47 3 A. Yes, I did.

04:05:47 4 Q. Is that a web domain name owned by Ametek Sensors?

04:05:49 5 A. It is not.

04:05:50 6 Q. Now, you mentioned that the Sakula malware beacons to a

04:06:04 7 second domain. Will you please share that second domain with

04:06:07 8 the jury?

04:06:08 9 A. The second domain that it was configured to beacon to

04:06:11 10 was secure.safran-group.com.

04:06:18 11 Q. Are you familiar with Safran Group, the company?

04:06:22 12 A. I am.

04:06:23 13 Q. Did you visit secure.safran-group.com?

04:06:31 14 A. I did not directly visit that domain.

04:06:33 15 Q. Are you aware if safran-group.com is a legitimate domain

04:06:38 16 owned by Safran, the company?

04:06:40 17 A. It is owned by Safran, the company.

04:06:44 18 Q. Backing up to your forensic analysis. Were you able to

04:06:53 19 determine if Sakula actually did beacon to these domains?

04:06:59 20 A. I was able to determine that.

04:07:00 21 Q. And how do you know?

04:07:01 22 A. There was evidence located on the hard drive of

04:07:07 23 outbound connections to both of those domains in the format

04:07:09 24 of a Sakula beacon.

04:07:11 25 Q. Now, you mentioned earlier that there were more than one

JAMES - DIRECT (McKenzie)

131

04:07:20 1 file -- that there was more than one file associated with this  
04:07:24 2 Sakula malware. Did any of those files have visible  
04:07:34 3 interfaces that you could interact with and see on the screen  
04:07:37 4 of the computer?

04:07:37 5 A. Yes, one of them did.

04:07:41 6 Q. In which language was that program?

04:07:43 7 A. It was in the Chinese language.

04:07:46 8 Q. Were you able to determine when the Sakula malware was  
04:07:55 9 installed on the hard drive?

04:07:58 10 A. I was.

04:07:59 11 Q. And what date was the malware installed on the hard  
04:08:05 12 drive?

04:08:05 13 A. January 25th of 2014.

04:08:09 14 Q. How do you know it was January 25th of 2014?

04:08:14 15 A. Because evidence associated with the file, like the  
04:08:18 16 created date indicated it was that date.

04:08:22 17 Q. What, if anything significant, happened with the hard  
04:08:27 18 drive prior to Sakula being installed on the computer? What,  
04:08:34 19 if anything, from the log?

04:08:36 20 A. There was several things that happened. A USB device  
04:08:40 21 was inserted into the computer immediately before the  
04:08:48 22 installation.

04:08:48 23 Q. What is a USB drive?

04:08:51 24 A. A USB device is a piece of removable media that is  
04:08:55 25 generally used by people to store files to transfer between

04:08:59 1 computers.

04:08:59 2 **Q.** How do you know that a USB drive was installed into the  
04:09:02 3 computer before the Sakula malware was installed?

04:09:09 4 **A.** So when a user takes actions on a computer, the  
04:09:13 5 operating system of that computer records information about  
04:09:15 6 the actions that were taken. Generally, these are being  
04:09:20 7 recorded to improve the user experience on the computer.  
04:09:24 8 And so when you insert a USB device into a computer, the  
04:09:28 9 computer records information about that USB device. So if  
04:09:32 10 you plug the same one in again in the future, your user  
04:09:36 11 experience is going to be as close to as possible as the  
04:09:38 12 first time you inserted it.

04:09:41 13 **Q.** On what date was the USB drive installed into the hard  
04:09:45 14 drive?

04:09:46 15 **A.** It was inserted into the computer on --

04:09:50 16 **Q.** Into the computer. I'm sorry.

04:09:55 17 **A.** -- on January the 25th, 2014.

04:09:58 18 **Q.** I'd like to take a step back from your forensic  
04:10:01 19 examination for a moment.

04:10:07 20 As part of your investigation, did you review text  
04:10:09 21 messages sent and received by the defendant?

04:10:13 22 **A.** I did.

04:10:14 23 MR. MCKENZIE: Before we get to those, Your Honor, I  
04:10:16 24 ask that we publish to the jury Government's Exhibit 21b,  
04:10:22 25 which is already in evidence, and I ask that we turn to page

JAMES - DIRECT (McKenzie)

133

04:10:26 1 1.

04:10:27 2 THE COURT: Very well.

04:10:31 3 BY MR. McKENZIE:

04:10:32 4 Q. Directing your attention to page 1, could you please read

04:10:34 5 the name listed in the top left corner?

04:10:38 6 A. Xu Yanjun.

04:10:42 7 Q. Moving to the middle of the page, can you read what is

04:10:45 8 written under "Current Post"?

04:10:49 9 A. "Deputy division director at Sixth Bureau of Jiangsu

04:10:54 10 Province Ministry of State Security."

04:10:56 11 Q. I'd like to direct your attention now to page 2. And

04:11:02 12 specifically to the job posting from August 2010 to November

04:11:10 13 2014. Could you please read that job posting?

04:11:15 14 A. "Section chief at Second Section of Fourth Bureau of

04:11:22 15 Jiangsu Ministry of State Security, the agency renamed to

04:11:26 16 the Sixth Bureau in December, 2013."

04:11:28 17 THE COURT: Sir, you are doing great. Can you keep

04:11:30 18 your voice up, please. A couple old men in the back row

04:11:33 19 having trouble hearing you.

04:11:36 20 THE WITNESS: Do you want me to read it again?

04:11:39 21 THE COURT: No.

04:11:40 22 BY MR. McKENZIE:

04:11:40 23 Q. No.

04:11:42 24 MR. McKENZIE: Your Honor, may we now publish what

04:11:44 25 is in evidence as Government's Exhibit 110, and direct the

JAMES - DIRECT (McKenzie)

134

04:11:50 1 witness's attention to page 1?

04:11:55 2 THE COURT: Yes.

04:11:59 3 BY MR. McKENZIE:

04:12:02 4 Q. Looking at the key at the very, very top, in what color  
04:12:06 5 are the messages sent by Xu Yanjun?

04:12:10 6 A. Blue.

04:12:13 7 Q. Will you please read the first message sent on November  
04:12:20 8 19, 2013?

04:12:23 9 A. Xu Yanjun contacted Tian Xi. He said, "On what date  
04:12:31 10 does the Frenchman arrive? Is it possible to make  
04:12:34 11 arrangements for him to meet with Teacher Wu Tieying and I  
04:12:40 12 in Suzhou? Under the name of Nanjing University of  
04:12:47 13 Aeronautics and Astronautics in the evening."

04:12:48 14 Q. In what country is Safran located?

04:12:50 15 A. They are located in France.

04:12:52 16 Q. Who sent this message that you just read?

04:12:54 17 A. Xu Yanjun.

04:12:58 18 Q. And who received the message?

04:12:59 19 A. Tian Xi.

04:13:02 20 MR. McKENZIE: Your Honor, I ask that we now show  
04:13:04 21 the witness what is in evidence as Government's Exhibit 111.  
04:13:09 22 And I ask that we direct the -- or excuse me -- publish to the  
04:13:15 23 jury 111 and direct the witness's attention to page 6.

04:13:21 24 THE COURT: Yes.

04:13:28 25 BY MR. McKENZIE:

JAMES - DIRECT (McKenzie)

135

04:13:28 1 Q. I am showing you what is in evidence as Government's 111.  
04:13:31 2 Are these business records from Safran?  
04:13:33 3 A. Yes, it is.  
04:13:34 4 Q. Directing your attention to the -- the top of the page,  
04:13:43 5 who is the sender of this letter?  
04:13:45 6 A. Safran Aircraft Engines Suzhou Company, Limited.  
04:13:51 7 Q. Turning your attention to the first paragraph of the  
04:13:56 8 column on the right. Who is the recipient of this letter?  
04:14:00 9 A. Tian Xi.  
04:14:04 10 Q. About midway through there is a title. Will you please  
04:14:08 11 read the title of this letter?  
04:14:10 12 A. "Position of Manufacturing Engineer."  
04:14:13 13 Q. Under "Re:" -- do you see where it says "Re: Termination  
04:14:18 14 Letter"?  
04:14:18 15 A. Oh, yes.  
04:14:19 16 Q. And then directing your attention to the first full  
04:14:22 17 paragraph, does it list Tian Xi's position as manufacturing  
04:14:30 18 engineer?  
04:14:30 19 A. It does.  
04:14:31 20 Q. We'll return to this exhibit later. I would like to  
04:14:41 21 please go back to Government's 110, page 1.  
04:14:47 22 I will read the responses from Tian Xi, and you please  
04:14:55 23 read the messages for Xu Yanjun.  
04:14:58 24 Tian responded, "Next Monday. I'll be here with another  
04:15:03 25 Frenchman that frequently comes to Suzhou. I think they will

JAMES - DIRECT (McKenzie)

136

04:15:08 1 be together all the time. It's not good to talk to both of  
04:15:10 2 them. I will [mention] it to him."  
04:15:16 3 "Mention it to him and see what reaction he has."  
04:15:21 4 A. Xu Yanjun then replies, "Good, thanks."  
04:15:25 5 Q. Moving to November 25, 2013, will you again read the  
04:15:32 6 messages from Xu Yanjun, and I will read the messages from  
04:15:39 7 Tian Xi.  
04:15:40 8 A. "Do you have any knowledge of the company Firth Rixon  
04:15:45 9 Company?"  
04:15:45 10 Q. "The Suzhou Company isn't far from us but I've no  
04:15:48 11 knowledge of it."  
04:15:50 12 A. "Are those two Frenchmen arriving today? Are they  
04:15:53 13 going to Shanghai together on the weekend?"  
04:15:57 14 Q. "Yes."  
04:15:57 15 A. "What's the other Frenchman's name? What position does  
04:16:00 16 he hold? Is it his first time here? Will come often in the  
04:16:05 17 future? Are you familiar with him?"  
04:16:08 18 Q. "Both come often. One has been here ten times or so this  
04:16:11 19 year. The other's office is next door. First time coming  
04:16:15 20 over."  
04:16:17 21 A. "Do you have their business cards? If not, can you get  
04:16:20 22 them?"  
04:16:21 23 Q. "I have one. Will ask the other one."  
04:16:24 24 A. "Okay. Please help me to get the information. I'm  
04:16:28 25 sending what I need to your email. Thanks."



JAMES - DIRECT (McKenzie)

137

04:16:31 1 Q. "Got it."

04:16:32 2 A. "Email sent. Please check."

04:16:33 3 Q. "Okay."

04:16:36 4 Will you please read the message from November 26, 2013?

04:16:40 5 A. "When is it convenient for you to talk on the phone?"

04:16:47 6 Q. Will you please read the last message on this page from

04:16:52 7 November 27, 2013?

04:16:55 8 A. "I'll bring the horse to you tonight. Can you take the

04:16:59 9 Frenchman out for dinner tonight? I'll pretend I bump into

04:17:04 10 you at the restaurant to say hello. This way we don't need

04:17:08 11 to meet in Shanghai."

04:17:10 12 Q. Who sent that message?

04:17:12 13 A. Xu Yanjun.

04:17:15 14 Q. To whom did he send it?

04:17:17 15 A. Tian Xi.

04:17:19 16 Q. What does the phrase "horse" mean in cyber

04:17:21 17 investigations?

04:17:22 18 A. Remote access trojan.

04:17:24 19 Q. Where does the horse -- how does trojan derive -- let me

04:17:30 20 rephrase. How do you get "horse" from the phrase "trojan"?

04:17:34 21 A. Yes. So the name "remote access trojan" in computer

04:17:38 22 security is taken from the old Greek mythology of the trojan

04:17:43 23 horse. So in that story in Greek mythology the Greeks built

04:17:47 24 a trojan horse. They enticed the trojans to bring it inside

04:17:50 25 their city, and then it allowed -- you know, some soldiers

04:17:53 1 got out and opened the gates to allow the Greek Army in.

04:17:57 2 And so that's similar to a piece of malware being  
04:18:01 3 installed on your computer and then allowing your remote  
04:18:05 4 user to access it, similar to how it was used Greek  
04:18:08 5 mythology.

04:18:08 6 Q. Is a remote access trojan a type of trojan horse?

04:18:11 7 A. It is.

04:18:12 8 Q. Is Sakula a type of trojan horse?

04:18:14 9 A. It is.

04:18:14 10 Q. And remind me, where is Safran located?

04:18:20 11 A. It's headquartered in France.

04:18:23 12 MR. McKENZIE: Could we please see page 2 of Exhibit  
04:18:27 13 110.

04:18:27 14 BY MR. McKENZIE:

04:18:31 15 Q. I'd like to continue reading the messages from November  
04:18:33 16 27th. I will read Tian Xi.

04:18:39 17 He responded, "I will find out if they have other  
04:18:42 18 arrangements."

04:18:42 19 A. "Good. Is tonight on?"

04:18:44 20 Q. "No."

04:18:47 21 A. "I'm on the train. Be in Suzhou around five."

04:18:51 22 "Best to have dinner arrangement for tonight. If not,  
04:18:55 23 I'll stay at the hotel where they stay and then you can say  
04:18:59 24 we'll have breakfast with them tomorrow morning and can go  
04:19:03 25 to work together. This way I can also meet them."

JAMES - DIRECT (McKenzie)

139

04:19:07 1 "Most important is to meet them face to face."

04:19:11 2 Q. "Got it. They'll have a telephone conference call this

04:19:14 3 afternoon with France. I am discussing with them the matter

04:19:18 4 of having dinner tonight."

04:19:25 5 I'd like to move on to the next set of messages.

04:19:33 6 "It's possible they don't get off work until rather

04:19:37 7 late."

04:19:37 8 A. "Okay."

04:19:38 9 "It's tough."

04:19:40 10 "If you're successful in arranging a meal, where would

04:19:43 11 it be? I'll soon be in Suzhou."

04:19:47 12 "I can wait for you there first."

04:19:49 13 "I'm in a taxi, first heading to Yinxiang City."

04:19:55 14 Q. "Let's meet in Yinxizng City. They're having a telephone

04:19:58 15 conference meeting and will be late."

04:20:01 16 A. "Good."

04:20:02 17 Q. "They are going straight to eat at the hotel today."

04:20:06 18 A. "I am here."

04:20:07 19 "I'm on the fourth floor, Dayu. Waiting for you at the

04:20:13 20 booth seat in the back."

04:20:15 21 Q. "Haven't left work yet. Wait an hour for me."

04:20:18 22 A. "No worry, this is a buffet. I can wait."

04:20:22 23 "Which hotel are they staying at?"

04:20:24 24 Q. "Crowne Plaza."

04:20:27 25 A. "I've arrived."

JAMES - DIRECT (McKenzie)

140

04:20:31 1 Q. Let's continue to read the messages from November 29,  
04:20:36 2 2013.  
04:20:39 3 A. "No chance these two days?"  
04:20:41 4 Q. "Not yet. I'll pay attention."  
04:20:50 5 A. "Good."  
04:20:51 6 MR. McKENZIE: Can we turn to the next page, please.  
04:20:51 7 BY MR. McKENZIE:  
04:20:54 8 Q. Will you please read the first message from December 6,  
04:20:58 9 2013?  
04:20:58 10 A. "Horse hasn't been planted."  
04:21:01 11 Q. Who sent that message?  
04:21:02 12 A. Xu Yanjun.  
04:21:04 13 Q. To whom did he send it?  
04:21:05 14 A. Tian Xi.  
04:21:09 15 Q. In the context of cyber investigations, what does it mean  
04:21:12 16 to plant a horse?  
04:21:13 17 A. To install a remote access trojan.  
04:21:16 18 Q. Let's continue reading the messages.  
04:21:20 19 "Not yet. I'll replay your email this weekend."  
04:21:24 20 A. "Good."  
04:21:28 21 Q. And let's continue on to December 9, 2013.  
04:21:34 22 A. "Have you sent the email to me?"  
04:21:36 23 Q. "Will send tonight, sorry about that."  
04:21:39 24 A. "It's nothing. Ho, ho."  
04:21:45 25 Q. And we'll continue on to the 26th of December.

JAMES - DIRECT (McKenzie)

141

04:21:51 1 A. "That old man came over this time but still can't find  
04:21:54 2 an opportunity?"  
04:21:56 3 Q. "No. Will notify you when it's planted."  
04:22:03 4 Again, what does "planted" mean in this context?  
04:22:06 5 A. To install a remote access trojan.  
04:22:11 6 Q. Directing your attention to the first message of January  
04:22:16 7 16, 2014. Will you please read just the first message?  
04:22:23 8 A. "Little Gu, will you be in Suzhou tomorrow?"  
04:22:29 9 Q. Who sent that message?  
04:22:30 10 A. Xu Yanjun.  
04:22:33 11 Q. And who received the message?  
04:22:34 12 A. Gu Gen.  
04:22:38 13 MR. McKENZIE: Your Honor, at this time I ask  
04:22:40 14 permission to publish to the jury what is in evidence as  
04:22:43 15 Government's 111 and show the jury page 1.  
04:22:49 16 THE COURT: Yes, it's in evidence. I thought we  
04:22:52 17 were just looking at that.  
04:22:54 18 MR. McKENZIE: Yes.  
04:22:54 19 THE COURT: Okay. Page 1.  
04:22:54 20 BY MR. McKENZIE:  
04:22:59 21 Q. Directing your attention to the top left of the page,  
04:23:02 22 what is listed under "Name"?  
04:23:05 23 A. Gu Gen.  
04:23:07 24 Q. Near the bottom of the screen that's being displayed  
04:23:10 25 right now, will you please read what it is in the box next to

JAMES - DIRECT (McKenzie)

142

04:23:16 1 "Position"?

04:23:16 2 A. "Senior IT infrastructure manager and information  
04:23:20 3 security officer."

04:23:22 4 Q. Directing your attention to the bottom of the page, which  
04:23:26 5 will require a scroll down, will you please read who is listed  
04:23:31 6 as the employer where we have that stamp?

04:23:34 7 A. It says, "Safran Beijing Enterprise Management Company  
04:23:39 8 Limited, Suzhou Branch."

04:23:43 9 Q. All right.

04:23:45 10 MR. McKENZIE: Your Honor, I ask to return to  
04:23:47 11 Government's 110, page 3, and publish that now to the jury.

04:23:51 12 THE COURT: Yes.

04:23:55 13 MR. McKENZIE: And could we scroll down now to the  
04:23:58 14 messages on January 16th.

04:23:58 15 BY MR. McKENZIE:

04:24:02 16 Q. I will read the Gu Gen response.

04:24:07 17 "Yes."

04:24:08 18 A. "I may go to Suzhou tomorrow. Let's meet if you are  
04:24:14 19 available."

04:24:15 20 Q. "Okay."

04:24:17 21 Can we please read the first set of messages on January  
04:24:24 22 17, 2014? And we'll stop when we get to 11:07 a.m.

04:24:36 23 A. Okay.

04:24:36 24 "Let's meet in the evening at Yinxiangcheng."

04:24:39 25 "What time do you prefer?"

JAMES - DIRECT (McKenzie)

143

04:24:42 1 Q. Gu Gen replied, "I should be able to get there around 6."

04:24:47 2 A. "Okay."

04:24:48 3 "Little Gu, my schedule changed. I may arrive in

04:24:52 4 Suzhou late. Shall we meet at 8 instead? Still in 'Tea and

04:24:59 5 Seat' in Yinxiangcheng. Let's just have a chat instead of

04:25:03 6 dinner. What do you think?"

04:25:05 7 "Sorry about that."

04:25:07 8 Q. "8 o'clock is a little bit too late. What about we do a

04:25:10 9 phone chat instead?"

04:25:12 10 A. "It won't take long. 30 minutes will do. I will

04:25:15 11 arrive in Suzhou around 7. I can be there by 7:30 at the

04:25:20 12 earliest."

04:25:21 13 Q. "Okay."

04:25:22 14 A. "I got on an earlier train. Will arrive at

04:25:25 15 Yinxiangcheng in 30 minutes."

04:25:30 16 MR. MCKENZIE: Can we please go to page 4.

04:25:30 17 BY MR. MCKENZIE:

04:25:35 18 Q. "Okay. I'm on my way."

04:25:36 19 A. "I have arrived."

04:25:38 20 Q. "Will be there soon."

04:25:39 21 A. "No hurry."

04:25:41 22 Q. Let's -- let's stop right there.

04:25:44 23 I'm going to direct your attention to just the next

04:25:48 24 message. Will you please read that message?

04:25:55 25 A. "I just met with Little Gu and he said Safran cautioned

JAMES - DIRECT (McKenzie)

144

04:26:00 1 people were posing as company leadership sending out  
04:26:04 2 letters. Did you all do that?"

04:26:06 3 Q. Who sent that message?

04:26:08 4 A. Xu Yanjun.

04:26:10 5 Q. To whom did he send it?

04:26:12 6 A. Chai Meng.

04:26:16 7 MR. McKENZIE: Your Honor, I ask that we publish to  
04:26:18 8 the jury what is in evidence as Government's 39b and direct  
04:26:22 9 their attention to page 1.

04:26:25 10 THE COURT: Yes.

04:26:25 11 BY MR. McKENZIE:

04:26:29 12 Q. Directing your attention to the fourth message sent on  
04:26:36 13 the right there. Is that the message that you just read?

04:26:39 14 A. That is what I just read.

04:26:42 15 Q. And is the recipient there on the left Chai Meng?

04:26:49 16 A. Yes, it is.

04:26:50 17 MR. McKENZIE: Your Honor, I'd like to return now to  
04:26:52 18 the Government's Exhibit 110, where we left off.

04:26:57 19 THE COURT: Very well.

04:26:58 20 MR. McKENZIE: Page 4? Page 3. I apologize. With  
04:27:02 21 the Chai Meng. No, page 4. On page 4.

04:27:02 22 BY MR. McKENZIE:

04:27:10 23 Q. And I will read Chai Meng's response.

04:27:13 24 "We pretended to be the webmaster sending out the letter  
04:27:17 25 but not posing as leadership. It's unknown how many want to



04:27:20 1 engage Safran each day."

04:27:22 2 A. "How is it that you all didn't bother them by  
04:27:25 3 cautioning? I just stated that it was you that had done  
04:27:30 4 it."

04:27:30 5 Q. "Gu believed we did it?"

04:27:33 6 A. "No doubt."

04:27:34 7 Q. Are you familiar with the term "phishing," spelled  
04:27:41 8 P-H-I-S-H-I-N-G, in the context of cyber intrusions?

04:27:46 9 A. I am.

04:27:47 10 Q. Will you explain to the jury what phishing is?

04:27:52 11 A. Phishing is when you send an email to somebody that  
04:27:55 12 looks like an email that they would get from a person that  
04:27:58 13 they would expect to get an email from, but what you do is  
04:28:01 14 you embed some kind of either malicious link or you add a  
04:28:05 15 malicious attachment that if they click on it or open the  
04:28:08 16 attachment, it will compromise their computer and give you  
04:28:11 17 access to it.

04:28:13 18 Q. What stands out to you about this exchange that we just  
04:28:18 19 read?

04:28:19 20 A. What stands out to me most is that Gu had told them  
04:28:26 21 that Safran had cautioned people, that people were posing as  
04:28:31 22 the leadership to send out letters, which could also be  
04:28:35 23 emails.

04:28:37 24 Q. I'd like to pause from reading these messages for a  
04:28:41 25 moment and return to your analysis of the computer.

JAMES - DIRECT (McKenzie)

146

04:28:44 1 On which date was the Sakula malware you found installed  
04:28:49 2 on the computer?

04:28:50 3 A. January 25th of 2014.

04:28:55 4 Q. On which date was the USB drive installed on the  
04:28:58 5 computer?

04:28:59 6 A. It was inserted into the computer on January 25, 2014.

04:29:03 7 Q. Returning to the Government's Exhibit 110, I would like  
04:29:08 8 to begin reading the messages from January 25, 2014. Is this  
04:29:14 9 the same day that the malware was installed?

04:29:17 10 A. It is.

04:29:17 11 Q. Will you please read, even though it's in green, but will  
04:29:21 12 you please read the first message from January 25, 2014?

04:29:26 13 A. "The horse is planted this morning."

04:29:29 14 Q. Will you please remind the jury what it means to plant a  
04:29:32 15 horse?

04:29:32 16 A. To install a remote access trojan.

04:29:35 17 Q. Who sent that message?

04:29:36 18 A. Tian Xi.

04:29:39 19 Q. To whom did he send it?

04:29:43 20 A. Xu Yanjun.

04:29:43 21 Q. Will you please read just the defendant's response?

04:29:52 22 A. "Good."

04:29:54 23 Q. Now, the next message on the screen, who sent that  
04:30:01 24 message?

04:30:02 25 A. Xu Yanjun.

JAMES - DIRECT (McKenzie)

147

04:30:03 1 Q. To whom did he send it.

04:30:05 2 A. Chai Meng.

04:30:07 3 Q. What did the defendant tell Chai Meng?

04:30:09 4 A. "I have reported the Suzhou incident to Zha, and I will  
04:30:14 5 start my vacation today. Please direct any inquiries or  
04:30:17 6 reports to Chen. Thanks."

04:30:19 7 Q. I will now read Chai Meng's response.

04:30:25 8 "Okay. A device with a Nanjing IP address is now online.  
04:30:30 9 I'm taking a look at."

04:30:35 10 Will you please remind the jury what an IP address is?

04:30:41 11 A. An IP address is how a device that's on the Internet is  
04:30:46 12 communicated with. So it's the address at which that device  
04:30:50 13 is located.

04:30:51 14 Q. What does it mean to have a Nanjing IP address?

04:30:57 15 A. There are ways to geolocate, so to determine where a  
04:31:01 16 physical computer is, based on the IP address. So in this  
04:31:05 17 instance, they indicate that the IP address is geolocating  
04:31:11 18 to Nanjing.

04:31:12 19 Q. In the context of remote access trojans in general and  
04:31:17 20 Sakula in particular, what does it mean to be online?

04:31:21 21 A. To be online for remote access trojan means that the  
04:31:26 22 beacon has been received by a controller that is controlled  
04:31:29 23 by the IP intruders.

04:31:31 24 Q. Based on your review of the Sakula malware, does that  
04:31:35 25 program allow a user to take a look at the computer?

JAMES - DIRECT (McKenzie)

148

04:31:38 1 A. Yes, it would allow them to access the computer.

04:31:44 2 Q. Will you please read the next message?

04:31:51 3 A. "I saw this person's device, but his IP shows Nanjing.

04:31:56 4 Is that person in Nanjing?"

04:31:58 5 Q. Who sent that message?

04:31:59 6 A. Xu Yanjun.

04:32:02 7 Q. To whom did he send it?

04:32:04 8 A. Tian Xi.

04:32:06 9 Q. And how did Tian Xi respond?

04:32:10 10 A. "No, he is in Suzhou."

04:32:14 11 Q. Directing your attention now to January 26, 2014,

04:32:20 12 messages, will you please read the first message that was

04:32:23 13 sent?

04:32:25 14 A. "Destroy the horse."

04:32:28 15 Q. Who sent that message?

04:32:29 16 A. Xu Yanjun.

04:32:32 17 Q. To whom did he send it?

04:32:34 18 A. Tian Xi.

04:32:35 19 Q. Did Tian Xi reply, "Acknowledged"?

04:32:39 20 A. He did.

04:32:41 21 THE COURT: We are past 4:30. Are we at a good

04:32:44 22 break point?

04:32:45 23 MR. MCKENZIE: As good as any, Your Honor.

04:32:47 24 Actually, you know what? If I can ask two more

04:32:50 25 questions, we will be at an even better break point.

04:32:54 1 THE COURT: I'll count them. Go ahead.

04:32:54 2 BY MR. McKENZIE:

04:32:59 3 Q. Question 1: Based on your review, your forensic review  
04:33:02 4 of the computer, was the Sakula malware altered on January 26,  
04:33:10 5 2014?

04:33:11 6 A. It was not.

04:33:11 7 Q. In this context, what does "destroy the horse" mean?

04:33:18 8 A. In this context, it could mean to either remove the  
04:33:20 9 malware from the compromised computer or to destroy the  
04:33:25 10 device that the horse was originally located on.

04:33:28 11 MR. McKENZIE: I'm a man of my word, Your Honor. I  
04:33:30 12 will pause questioning until tomorrow.

04:33:32 13 THE COURT: Let the record reflect that.

04:33:34 14 Ladies and gentlemen of the jury, you have done a good  
04:33:37 15 job today. I've been watching you. You're taking notes.  
04:33:41 16 You're focused. You're working hard. On behalf of the court  
04:33:45 17 and the community, we express a thanks for the work you are  
04:33:48 18 doing.

04:33:48 19 I want you to take a break tonight and go back to family  
04:33:51 20 and loved ones. Do not answer any of their questions about  
04:33:54 21 what's going on in the court. Tell them the judge has ordered  
04:33:58 22 you not to. So no discussing the case with anyone, including  
04:34:02 23 among yourselves. No independent research. Continue to keep  
04:34:06 24 an open mind. Get a good night's sleep. We'll ask you to be  
04:34:11 25 here, as always, at 9:15 in the hope that we can get you in

04:34:15 1 the courtroom at 9:30.

04:34:16 2 Out of respect for you, we will rise as you leave for the  
04:34:20 3 day.

04:34:20 4 THE COURTROOM DEPUTY: All rise for the jury.

04:34:22 5 (Jury out at 4:34 p.m.)

04:35:02 6 THE COURT: The jury's left the room. The door is  
04:35:04 7 closed. Is there anything that requires the Court's attention  
04:35:07 8 before we adjourn for the evening, first from the government?

04:35:15 9 MR. MANGAN: Your Honor, I --

04:35:17 10 THE COURT: Should I sit down? Is this going to --  
04:35:18 11 everybody better sit down.

04:35:20 12 MR. MANGAN: I didn't think it would be that long,  
04:35:21 13 but, Your Honor, tomorrow we discussed with the defense that  
04:35:24 14 after calling a few witnesses what we wanted to do was publish  
04:35:28 15 some exhibits that have been admitted but have not yet been  
04:35:31 16 read to the jury.

04:35:32 17 We have a number of exhibits that we admitted but have  
04:35:35 18 not yet published, one of which is a lengthy transcript of a  
04:35:40 19 recording, and what we wanted to do was have a couple people  
04:35:44 20 read the transcript to publish it to the jury. We weren't  
04:35:50 21 going to do that through a witness. We were just going to  
04:35:52 22 bring people in to read as the publication. The defense  
04:35:56 23 indicated they have an objection to that process. So I wanted  
04:36:00 24 to at least raise it today so that if the Court has a  
04:36:04 25 preference or an instruction, we can abide by it.

04:36:07 1 THE COURT: Very well. Defense wish to be heard?

04:36:14 2 MR. MIEDEL: I'll step over here, Your Honor.

04:36:14 3 THE COURT: Okay.

04:36:17 4 MR. MIEDEL: Yes, Your Honor, we object to that  
04:36:17 5 process because the exhibit that the government is talking  
04:36:20 6 about is a lengthy transcript. It's a recording. It's  
04:36:23 7 already in evidence. So now the government is simply seeking  
04:36:27 8 to bring in people from the outside to read parts of that  
04:36:32 9 transcript to the jury without a witness on the stand. That's  
04:36:36 10 just not an appropriate process of doing that.

04:36:38 11 The government can obviously -- the exhibit is in  
04:36:41 12 evidence. It will be in the hands of the jury. The  
04:36:44 13 government, in summation, can point to whatever they want in  
04:36:46 14 that transcript that they think is important. But it's not  
04:36:52 15 appropriate to bring outside people in who were not  
04:36:56 16 eyewitnesses to simply do a reading of an exhibit.

04:36:59 17 THE COURT: I tend to agree. I am not yet  
04:37:02 18 comfortable with the process. I will continue to think about  
04:37:04 19 it.

04:37:04 20 Did you wish to be heard further at this time,  
04:37:08 21 Mr. Mangan?

04:37:09 22 MR. MANGAN: Your Honor, I guess what I would say is  
04:37:10 23 that at some point we want to get those admitted exhibits in  
04:37:14 24 the, you know, in the hands or the eyes of the jury so they  
04:37:16 25 can digest what is in there.

04:37:19 1 THE COURT: Typically, that would happen when the  
04:37:20 2 exhibit goes to the witness room.

04:37:24 3 MR. MANGAN: They can certainly do it then, Your  
04:37:26 4 Honor. This is simply a method of, you know, reading through  
04:37:29 5 some of these items for the jury. I suppose we could -- we  
04:37:34 6 could put a witness on the stand and just read, similar to any  
04:37:37 7 other exhibit, but it may be a witness that wouldn't do  
04:37:41 8 anything more than read. You know, there would be no  
04:37:45 9 commentary on it. It's simply reading.

04:37:48 10 THE COURT: That sounds exciting.

04:37:49 11 MR. MANGAN: Oh, it's going to be gripping either  
04:37:52 12 way, but, you know -- so if we need to put somebody on the  
04:37:56 13 stand, we can; but generally, what we were simply trying to do  
04:37:59 14 was to read to the jury. I think that's at least a preferable  
04:38:04 15 way than to handing it out and then just having them sort of  
04:38:07 16 read on their own.

04:38:08 17 THE COURT: Well, I'm still not comfortable with it.  
04:38:10 18 I'll work on it.

04:38:11 19 MR. MANGAN: All right. That's all we had, Your  
04:38:13 20 Honor.

04:38:13 21 THE COURT: Very well. Does the defense have  
04:38:15 22 anything before -- to interfere with my ability to leave at  
04:38:19 23 this time?

04:38:20 24 MS. CORS: No, Your Honor. Thank you.

04:38:21 25 THE COURT: That's a credit to you.



04:38:25 1 The special agent will not discuss his testimony that  
04:38:28 2 he's given during the break, and if you will behave yourself  
04:38:31 3 in the city of Cincinnati.

04:38:34 4 THE WITNESS: Will do.

04:38:35 5 THE COURT: We're in recess for the day.

04:38:38 6 THE COURTROOM DEPUTY: All rise. This court is now  
04:38:39 7 in recess.

04:38:40 8 (Proceedings adjourned at 4:38 p.m.)

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## 1 CERTIFICATE OF REPORTER

2  
3 I, Mary A. Schweinhagen, Federal Official Realtime  
4 Court Reporter, in and for the United States District Court  
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9 above-entitled matter and that the transcript page format is  
10 in conformance with the regulations of the Judicial Conference  
11 of the United States.

12  
13 s/Mary A. Schweinhagen

14 \_\_\_\_\_ 20th of January, 2022

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